



<http://ex3host.com/iris>

**Incident Reporting Information System (IRIS):
Updates and Familiarization**

March 1, 2007

**NASA 2007 Safety and Health
Managers Meeting**

Suzanne L. Otero

IRIS Implementation Manager

NASA Safety Center



Topics

- **IRIS reporting program updates**
 - Brief Overview
 - What was accomplished this year
 - FY06 Release package #2
 - Mishap Prevention through IRIS
Data Promulgation :IRIS MOU
- **IRIS reports for managers and safety organizations**
- **What we will be doing in FY07**
- **What we need from you**



IRIS Implementation Modules

CVIS Data exchange



**Corrective
Action Tracking
and verification**

**Corrective
Incident
(DFRC "ICAS" pilot)**

Action Request

**Safety Incident
NPR 8621.1B
"Quick Incident"**

1627A's & anonymous reports
Property and vehicle damage
Investigation

**Accounts, security & Reference Table
Management**

Headcount

**Employee
FPPS/
x500 network
(CBACS)**

Administration

Independent analysis support

**Injury Illness
OSHA/29CFR1904
Injury/Illness analysis**

Case Management

**Medical Appt.
Scheduling
Resource**

NESC TIRMS

**Technical Issues Reporting Management
System**

IRIS: <http://nasa.ex3host.com/iris>



“Quick Incident” function

Quick Incident

- Click here to Report a Mishap or Close C
- Click here to Report a Health Issue
- Click here to Track Report Status

IRIS Site Administrators

- ARC-Mark Washington (650) 604-2850
- DFRC-Dean LeBret (661) 276-3796
- GRC-Debbie Ripley (216) 433-2361
- GSFC-Lisa Cutler (301) 286-7409
- HQ/IG-Darrius Lewis (202) 358-0608
- JSC-Dan Clem/Ron Montague (281) 483-4272
- KSC-Alan Zoellner (321)867-7554
- LaRC-Robbin Freeman (757) 864-1169
- Michoud-Stephen Turner (504) 257-2526
- MSFC-Kristie French (256) 544-7474
- SSC-Brian Hey (228) 688-1249
- WFF-Howard Kilmon (757) 824-1486
- WSTF Don Hall (505) 524-5321

Accounts must be approved by the site admin.

NASA Initial Safety Incident Report

Quick Safety Incident Report

INSTRUCTIONS: This form is intended for use by any person who has initial knowledge of any NASA related accidental human injury, illness, property damage or close call. This form will notify your Safety Office immediately of this incident. Complete all known information and submit.

Instruction Details:

1. Incident Date - Enter date of the incident
2. Time of Incident - Enter the time of the incident
3. General Location - Identify the building, area, or facility where the incident occurred.
4. Responsible Organization - Enter name of organization that is reporting the incident.
5. Exact Location - Describe the exact location of the incident. Example: Third floor, west corridor.
6. Contract Number - When the organization is a contractor, enter the contract number.



Incident Category:

To Be Determined

Incident Type:

<<Select Safety Type>>

Incident Sub Type:

<<Select Incident SubType>>

Incident Date:

2/28/2007 Time: 20 46

Reported Date:

2/28/2007 Time: 20 46

Country:

United States of America

Site:

<<Select Site>>

Campus:

<<Select Campus>>

General Location:

Clear

Exact Location:

NASA/Contractor?

NASA

Responsible Directorate:

<<Select Directorate>>

Responsible Organization:

<<Select Organization>>

**Quick Incident reports
Do not compile in
agency metrics until
they are classified
by a safety admin.**

**Mishap
Close call
Hazard
To be determined
Employee Safety Concern**



One Line Description (do not use names):

If known, add the following information to the Detailed Description:

- 1 Organization Point of Contact, Mail Code, Phone - Identify the person to contact at the organization, if different from the person submitting this report.
 - 2 Mission Affected - Enter the name or number of the mission, program, or project affected by the mishap. Examples: STS-32, Delta 181.
 - 3 Program Impact - Describe the effect on the mission, program, or project in terms of delay or significant cost adjustment. Example: Two-week launch delay.
 - 4 Incident Description - Describe the event including information about the extent of damage and/or injury, conditions that led to the mishap, and cause if known at this time. Specify location of facility where medical treatment was provided. DO NOT include names of persons.
 - 5 Impact Summary - Include the following outcomes from this event that are known facts.

Fatality	Damage Estimate over \$1,000,000
Permanent Disability	Damage Estimate between \$250K and \$1M
3 or more people hospitalized	Damage Estimate between \$25K and \$250K
1 or 2 people hospitalized	Damage Estimate between \$1K and \$25K
Loss of Consciousness	Damage Estimate under \$1,000
Injury or Illness	Close Call
- Serious Damage to flight or ground support hardware Affected primary objective(s) of mission
 Serious damage to aircraft or space hardware Significant program impact
 Unexpected damage due to test failure High visibility (internal or external NASA)

Detailed Description:

To enter your name, click the  button to look up your employee record. Use the pop-up search window to find your name, and insert it in the box.

If you want to remain anonymous, you do not have to provide your name in the "Recorded by" field below. However, if you remain anonymous, the site safety representative will not be able to alert you when action has been taken on the issue.

Recorded By: 

If you do not wish to remain anonymous and your name was not found using the  button, enter

**Tell us as much
as you know.
(NPR 8621.1B 1.8.1)**

To enter your name, click the  button to look up your employee record. Use the pop-up search window to find your name, and insert it in the box.

If you want to remain anonymous, you do not have to provide your name in the "Recorded by" field below. However, if you remain anonymous, the site safety representative will not be able to alert you when action has been taken on the issue.

Recorded By: (Submitter)  Clear

If you do not wish to remain anonymous and your name was not found using the  button, enter your Name, Employer, Phone, Email Address and Mail Stop in the following 5 text fields.

Recorded By: (Submitter)

Name:

Employer:

Phone:

Email Address:

Mail Stop:

If you do not wish to remain anonymous, but don't want Safety to disclose your name to anyone, please choose "Yes" in the "Keep my name private" drop-down list.

Injuries Involved? No

Keep my name private No

Further Action Req'd? No

Clear

Cancel Save

bold labels indicate required field - All date formats:(m/d/yyyy)

**Entering your name:
Full Disclosure
Confidential
Anonymous**

**Connection to
Agency personnel
database**

If yes, IRIS takes you to another screen

If yes, a text box appears for more detail

**Sends e-mail to
safety office
roles for case
creation
classification
and assignment**



What was done this year

- IRIS FY06 Release Package #2
 - Audit report upgrades- audit records for compliance to NPR 8621.1B reporting standards
 - Action request response capability for non- IRIS user and contractor /contract hierarchy
 - Global “Safety Read Only” security roles including attachments per MOU dated July 12th,2006.
 - Expanded reports capability to include campus and general location
 - Corrective Action Plan and element tracking capability
 - “Significant program impact” and “mission effected documentation”

Action: Mishap Prevention through IRIS Data Promulgation



- **IRIS Action from SMA directors, “*Mishap Prevention through IRIS Data Promulgation*”** More information and status updates are needed. Four things that are important mishap cost, mishap severity, mishap type [classification, categorization], and close calls.
- **Status:**
 - Separate **face to face** with IRIS site administrators was needed and was performed
 - IRIS data was used in **special studies, quality exercises**
 - Mishap and close call severity and RAC / the application does support it. Our data entry process does not
 - **Monthly reports** still supplied (ERASMUS, Safety Statistics, Data quality checks)
 - **Historical analysis of cases for mishap typing is still needed** and some high profile cases were missing
 - **Integration of close calls still needed:** Close call collection approach still varies
 - **Trending and communication for prevention still needed**
 - **Promulgation supported by the creation of “IRIS Prime” allowing global viewing**

Action: Mishap Prevention through IRIS Data Promulgation



- **Summary: Recommended actions to SMA Directors:**
 - All SMA Directors review the enclosed MOU for IRIS Segmentation and agree upon its contents.
 - **All SMA Directors should periodically review the IRIS Data on the Administrator's ERASMUS web site to view what is going on at other NASA Centers.**
 - **Center Safety Directors should also be encouraged to participate in this review.**
 - **Each NASA Center should consider picking the "top ten" close calls** at their center and to transmit them to all other NASA SMA Directors for "Mishap Prevention Program" considerations.
 - PRACA Data, System Hazards are currently not a part of the IRIS Process. SMA Directors to evaluate and provide recommendations
 - **SMA directors move to assure a common close call reporting process at their centers to assure compliance to NPR 8621.1B**
 - Suggest SMA Directors will evaluate global viewing for 6 months and determine adjustments if needed.

Severity in IRIS: Details tab of the Case File



Ex3's EHS Data Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://nasa.ex3host.com/iris/newmenu/default.asp

Ex3's EHS Data Management System

Injury Illness
Action Request
Safety Incident
New
Find
Reports
Corrective Incident
Employee
Headcount
Schedule
Technical Issue
Administration
General

General Associations Investigation Notes Injury/Illness
Lessons Learned Action Request Attachments Mail
Investigators Property Vehicle **Details**

Incident Number: 1986-276-00002 **Legacy IRIS Number:** 5001
Incident Category: Mishap
Incident Type: Miscellaneous
Incident Sub Type: Other
Incident Date: 10/03/1986

Factors

Contacts:
Originator: GLEN BOLTZ, COR,
Key Contact:
Organization Manager:
Safety Manager:

Factors:
Primary Root Cause: EQUIPMENT FAILURE:Design Deficiency
Severity: <<Select Severity>>
Probability: <<Select Severity>>
RAC:
Indicators:
Close Call Indicator
False Alarm Indicator
Construction Indicator
Injury Involved
Test Failure
Property Damage Indicator
Vehicle Damage Indicator
Serious Damage to Aircraft or Space Hardware
Serious Damage to Flight or Ground Support Hardware
Unexpected Damage Due to Test Failure
Affected Primary Objective(s) of Mission
High Visibility (internal or external to NASA)
Program Impact
Mission Affected

bold labels indicate required field - All date formats:(m/d/yyyy)

- Class I Catastrophic
- Class II Critical
- Class III Marginal
- Class IV Negligible

Probability in IRIS: Details tab of the Case file



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Ex3's EHS Data Management System

Ex3

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General Associations Investigation Notes Injury/Illness
Lessons Learned Action Request Attachments Mail
Investigators Property Vehicle **Details**

Incident Number: 1986-276-00002 **Legacy IRIS Number:** 5001
Incident Category: Mishap
Incident Type: Miscellaneous
Incident Sub Type: Other
Incident Date: 10/03/1986

Factors

Contacts:
Originator: GLEN BOLTZ, COR,
Key Contact: Clear
Organization Manager: Clear
Safety Manager: Clear

Factors:
Primary Root Cause: EQUIPMENT FAILURE:Design Deficiency
Severity: <<Select Severity>>
Probability: <<Select Probability>>
RAC: <<Select Probability>>

Indicators:

Close Call Indicator	No
False Alarm Indicator	No
Construction Indicator	No
Injury Involved	Yes
Test Failure	No
Property Damage Indicator	No
Vehicle Damage Indicator	No
Serious Damage to Aircraft or Space Hardware	No
Serious Damage to Flight or Ground Support Hardware	No
Unexpected Damage Due to Test Failure	No
Affected Primary Objective(s) of Mission	No
High Visibility (internal or external to NASA)	No
Program Impact	No
Mission Affected	No

bold labels indicate required field - All date formats:(m/d/yyyy)

Save

A Frequent
B Probable
C Occasional
D Remote

What about RAC?
Awaiting New NPR.

Action: Mishap Prevention through IRIS Data Promulgation



- **What was needed**
 - Designated Safety Personnel at each center to have the ability to view global safety data across the agency.
- **What was created**
 - IRIS “read only roles” implemented
 - Read only roles given to IRIS POC’s, SMA directors and their designees.
 - Read only roles upgraded to include attachments
 - IRIS site administrators encouraged to site with read only account owners for familiarization
 - NSC personnel will follow up throughout the next six months
- **How it will be used**
 - **To identify and study “cases of interest”**
 - **Secure data sharing**

Incident Number: 2007-033-00001
Incident Category: Incident
Incident Type: Facility/Construction
Incident Sub Type: Liquid Fueling, dispensing
Incident Date: 02/01/2007

Incident Category: Incident

Incident Type: Facility/Construction

Incident Sub Type: Liquid Fueling, dispensing

Classification: Type D

Status: Closed

Report Source: Normal

Originator: Gay, Edward

Privacy: No

Incident Date: 02/01/2007 **Time:** 10:00

Reported Date: 02/01/2007 **Time:** 10:00

Location:

Site Type: Onsite

Country: United States of America

Site: Stennis Space Center

Campus: SSC - Main

General Location: 4122-TEST STAND A-2

Directorate: TA00 - ROCKET PROPULSION TEST PROGRAM OFFICE

Organization: NTOG Organization

Location: Outdoor

Specific Location: Dock Ramp at LH Dock 1

Contractor: Jacobs Sverdrup

Contract: NNS04AB62C

One Liner: (Do Not Use Names)
Dock Ramp broke free from anchor bolts.

Detailed Description:
While Rocketdyne personnel were in the process of raising the platform on LH Dock 1 of the A-2 Test Stand, the dock ramp broke free from the anchor bolts on the opposite sides of the bottom channel beam at the aft end of the fixture. The ramp tilted forward, towards the canal, and the lower beams at the aft end bent upwards at both the east and west sides of the ramp. This caused

Sample- 4 roles created
Global "Safety Read Only"
Global "Medical Read Only"
Both roles can come "w/ attachments"

- General
- Associations
- Investigation Notes
- Injury/Illness
- Investigators
- Property
- Vehicle
- Details
- Lessons Learned
- Action Request
- Attachments**
- Mail

No option available to open an attachment with the Safety-Read Only role

Incident Number: 2007-033-00001
Incident Category: Incident
Incident Type: Facility/Construction
Incident Sub Type: Liquid Fueling, dispensing
Incident Date: 02/01/2007

Sample

“Safety Read Only” Role
“with attachments” will provide visibility

Type	Document Description	Privacy Act	Last Updated	Action
	IMG_2252_1.JPG	No	2/5/2007 7:00:23 AM	
	IMG_2253_1.JPG	No	2/5/2007 7:00:55 AM	
	IMG_2254_1.JPG	No	2/5/2007 7:01:22 AM	
	IMG_2255_1.JPG	No	2/5/2007 7:01:54 AM	
	IMG_2259_1.JPG	No	2/5/2007 7:02:24 AM	
	IMG_2262_1.JPG	No	2/5/2007 7:02:56 AM	



Insert New Document

File:

Description:

Apply Privacy Act?

Any officer or employee of an agency, who by virtue of his employment or official position, has possession of, or access to, agency records which contain individually identifiable information the disclosure of which is prohibited by this section or rules or regulations established thereunder, and who knowing that disclosure of the specific material is so prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than \$5,000.

As an employee you are responsible for keeping designated information from unauthorized persons. Unauthorized disclosure is also a violation of Title 18 U.S. code. Penalties in most cases provides for fines up to \$10,000, imprisonment for not more than 10 years or both. Disclosure of sensitive information may result in immediate dismissal, fines up to \$1,000,000 and/or imprisonment for up to 10 years per event.

- General
- Associations
- Investigation Notes
- Injury/Illness
- Investigators
- Property
- Vehicle
- Details
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Sample

Type	Document Description	Privacy Act	Last Updated	Action
	IMG_2252_1.JPG	No	2/5/2007 7:00:23 AM	
	IMG_2253_1.JPG	No	2/5/2007 7:00:55 AM	
	IMG_2254_1.JPG	No	2/5/2007 7:01:22 AM	
	IMG_2255_1.JPG	No	2/5/2007 7:01:54 AM	
	IMG_2259_1.JPG	No	2/5/2007 7:02:24 AM	
	IMG_2262_1.JPG	No	2/5/2007 7:02:56 AM	

“Safety Read only w/Attachments”

Insert New Document

File:

Description:

Apply Privacy Act?

Any officer or employee of an agency, who by virtue of his employment or official possession of, or access to, agency records which contain individually identifiable disclosure of which is prohibited by this section or rules or regulations established who knowing that disclosure of the specific material is so prohibited, willfully disclose in any manner to any person or agency not entitled to receive it, shall be guilty of a crime and be fined not more than \$5,000.

As an employee you are responsible for keeping designated information from our system. Unauthorized disclosure is also a violation of Title 18 U.S. code. Penalties in most cases range from fines up to \$10,000, imprisonment for not more than 10 years or both. Disclosure of information may result in immediate dismissal, fines up to \$1,000,000 and/or imprisonment for not more than 10 years per event.



Reports to use in IRIS



Report	Useful for...	Periodicity
Audit Report	NPR comp.	Monthly by the 10-15
Log Reports (Daily, Incident, Tracking)	Detail for "Cases of Interest" identification	Daily for quick incidents
Indicators/ Paretos	assessing trends, identifying leading indicators	Quarterly, yearly
Cause Reports/ Damage Reports	Assessing leading root cause per damage and Damage per classification	Quarterly, yearly
Tracking and review reports	Corrective action status	Monthly, quarterly
Case statistics reports	Contractor Injury metrics	Quartely
Paretos	assessing trends, identifying leading indicators	Quarterly, yearly



Safety Incident Reports

Ex3's EHS Data Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://nasa.ex3host.com/iris/newmenu/default.asp

Ex3's EHS Data Management System

Indicators

Period Type: Yearly

Beginning Period: January 1997

Ending Period: December 2007

Site: All, Ames Research Center, Dryden Flight Research Center, Glenn Research Center

Campus: All

General Location: [Search] [Clear]

Employee Type: All

Injury/Illness: Injury

Injury/Illness Type: Avulsion, Bites or Sting, Burn, Chemical, Burn, Thermal

Indicator Type: Case, Numbers

Case Type: Occ - Non Recordable Non-Injury or Non-Illness, Occ - OSHA Record - Days Away, Occ - OSHA Record - Other, Occ - OSHA Record - Rest. Days Only

Date Type: Date of Injury

Site Type: <<Select Site Type>>

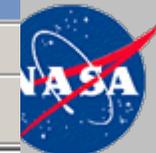
[Run Report] [Clear]

Category Type: All, includes Civil Servants and Contractors only.
bold labels indicate required field - All date formats:(m/d/yyyy)

- Injury Illness
- Action Request
- Safety Incident
- New
- Find
- Reports
 - Incident Log
 - Indicators
 - Paretos
 - Detail Cause
 - AR Reports
 - Center Safety
 - Damage Report
 - Audit
- Corrective Incident
- Employee
- Headcount
- Schedule
- Technical Issue
- Administration
- General

- Injury Illness
- Action Request
- Safety Incident
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 - Paretos
 - Detail Cause
 - AR Reports
 - Center Safety
 - Damage Report
 - Audit
- Corrective Incident

Log Reports



Ex3's EHS Data Management System



Incident Log

Date Indicator:	Incident Date
Date Indicator:	From 1/24/2007 To 2/23/2007
Incident Number:	
Incident Category:	All
Incident Type:	All
Incident Sub Type:	All
Classification:	All
Country:	United States of America
Site:	Glenn Research Center
Campus:	All
General Location:	
Status:	All
Report Source:	All
Investigator:	
Organization Type:	All

bold labels indicate required field - All date formats:(m/d/yyyy)

Log reports provide enough detail to:

1. Identify cases
2. Assign investigators
3. Track status

Log reports on “Quick Incidents” should be drawn once a week or more often

Data can be segregated by NASA site, campus, org, contractor, contract, building, investigator

Ex3's EHS Data Management System

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 Pareto
 Detail Cause
 AR Reports
 Center Safety
 Damage Report
 Audit

Corrective Incident
Employee
Headcount
Schedule
Technical Issue
Administration
General

Incident Log

Date Indicator: Incident

Date Indicator: From 1

Incident Number:

Incident Category: All

Incident Type: All

Incident Sub Type: All

Classification: All

Country: United States

Site: Glenn Research Center

Campus: All

General Location:

Status: All

Report Source: All

Investigator:

Organization Type: All

bold labels indicate required

Crystal Reports ActiveX Viewer - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address https://69.26.199.105/crystal/ex303210/ActiveXViewer.asp

100% 1 of 8

powered by crystal

Incident Tracking Log

Report Parameters:

Date Indicator : Incident Date	Incident Number : All
Country : United States of America	Site : Glenn Research Center
Campus : All	General Location : All
Incident Category : All	Incident Type : All
Incident Sub Type : All	Date Indicator From : 1/26/2007
Status : All	Date Indicator To : 2/25/2007
Investigator : All	Report Source : All
Classification : All	
Organization Type : All	

Incident No. : 2007-026-00004	Incident Category : Close Call
Incident Date : 01/26/2007	Incident Type : Health
Site : Glenn Research Center	Incident Sub Type : Minor Injury
Campus : GRC - Main	Classification : Close Calls
General Location : 7-MICROWAVE SYSTEMS LABORATORY	Status : Open Pending Investigation
Directorate :	IRIS File :
Organization :	
Contractor : SGT, Incorporated - TIALS	Contract : NNC05CB17C
Responsible Org :	Investigator : Traffis, Lawrence A
Root Cause : Walking Work Surface/Stairs	
Reported Date : 01/26/2007	Last Update Date : 02/02/2007
Brief Description : Taking a printer up some stairs had two employees who had some pain after this task. One had shoulder pain the other knee pain.	Report Source : Quick Incident
Detailed Description : They were unloading a printer (500 lbs.)at building 7, had four employees on this job, they used a furniture dolly to take it up the stairs one of the employees had a sharp pain in his right shoulder the other had pain in his left knee. Neither employee wanted to seek medical attention.	
Recorded By : Becker, Carl	
Program Impact Indicator : No	
Mission Affected Indicator : No	

Type	Class	Description	Direct Damage Cost
Final Cost :			

Crystal Reports ActiveX Viewer - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://69.26.199.105/crystal/ex303210/ActiveXViewer.asp> Go Links

150% 1 of 8

powered by crystal

Incident Tracking Log **Allows word/topic search**

Report Parameters:

Date Indicator	: Incident Date	Incident Number	: All
Country	: United States of America	Site	: Glenn Research Center
Campus	: All	General Location	: All
Incident Category	: All	Incident Type	: All
Incident Sub Type	: All	Date Indicator From	: 1/26/2007
Status	: All	Date Indicator To	: 2/25/2007
Investigator	: All	Report Source	: All
Classification	: All		
Organization Type	: All		

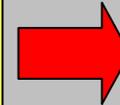
Incident No.	: 2007-026-00004	Incident Category	: Close Call
Incident Date	: 01/26/2007	Incident Type	: Health
Site	: Glenn Research Center	Incident Sub Type	: Minor Injury
Campus	: GRC - Main	Classification	: Close Calls
General Location	: 7-MICROWAVE SYSTEMS LABORATORY	Status	: Open Pending Investigation
Directorate	:	IRIS File	:
Organization	:	Contract	: NNC05CB17C
Contractor	: SGT, Incorporated - TIALS	Investigator	: Traffis, Lawrence A
Responsible Org	:	Last Update Date	: 02/02/2007
Root Cause	: Walking Work Surface:Stairs	Report Source	: Quick Incident
Reported Date	: 01/26/2007		
Brief Description	: Taking a printer up some stairs had two employees who had some pain after this task. One had shoulder pain the other knee pain.		
Detailed Description	: They were unloading a printer (500 lbs.)at building 7, had four employees on this job, they used a furniture dolly to take it up the stairs one of the employees had a sharp pain in his right shoulder the other had pain in his left knee. Neither employee wanted to seek medical attention.		
Recorded By	: Becker, Carl		
Program Impact Indicator	: No		
Mission Affected Indicator	: No		

“Cases of Interest”



- Identifiers

- Large/Lethal Energy Release potential
- Complex system
- Tightly coupled system
- Failing process
- Repetitive Failures
- Latent conditions
- Above average documentation
- Cap documentation
- Broad exposure-Process or activity or component broad based commonality
- Specific non IRIS highlight



**Potential
severity**



- Knowledge Management

- What is the information?
- **Who needs it?**
- **How should it be communicated?**
- **Corroborating data**
- **Strategic approach**

System Broadcast Message

This is the LIVE Production site.

For IRIS users with cross-Center Safety Incident Read-Only access, Safety Incident 2006-048-00001 is a case of interest you may wish to view, for potential value and awareness in preventing test incidents. If you have problems with your account, you may e-mail the IRIS accounts manager at: irisaccounts@grc.nasa.gov. Please contact your site administrator for any other IRIS issues or questions. Site administrator names and numbers:

ARC-Mark Washington (650) 604-2850; DFRC-Dean LeBret (661) 276-3796; GRC-Debbie Ripley (216) 433-2361; GSFC-Lisa Cutler (301) 286-7409; HQMG-Darrius Lewis (202) 358-0608; JSC-Dan Clem (281) 483-4272; KSC-Alan Zoellner (321)867-7554; LaRC-Robbins Freeman (757) 864-1169; Michoud-Stephen Turner (504) 257-2526; MSFC-Kristie French (256) 544-7474; SSC-Brian Hey (228) 688-1249; WFF-Howard Kilmon (757) 824-1486; WSTF Don Hall (505) 524-5321.



**Case 2006-046-00001
Battery Explosion**

Welcome Steve Lilley to Ex3® EHS Data Management System - IRIS, ver. 1.0

Responsible NASA Official: Suzanne L. Otero
eMail: Suzanne.L.Otero@nasa.gov

Safety Incident Indicators Reports



Indicators Reports
should be drawn on:
Contractors/contracts
Campuses, organizations,
Incident types.
Quarterly reports
comparisons

Ex3's EHS Data Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address https://nasa.ex3host.com/iris/newmenu/default.asp

Ex3's EHS Data Management System

Indicators

Period Type: Monthly

Beginning Period: February 2006

Ending Period: February 2007

Site: All
Ames Research Center
Dryden Flight Research Center
Glenn Research Center

Campus: All

General Location: [Search] [Clear]

Organization Type: All

Incident Category: All
Close Call
First Aid Only
Hazard

Indicator Type: Numbers

Incident Type: All
Acts of Nature
Aircraft
Aircraft-Flight

Date Type: Date of Incident

Site Type: <<Select Site Type>>

Report Source: <<Select Report Source>>

Case Status: <<Select Case Status>>

[Run Report] [Clear]

Organization Type: All, includes Civil Servants and Contractors only.
bold labels indicate required field - All date formats:(m/d/yyyy)



Safety Indicators Reports

STS-121 July 4-17, 2006
 STS-115 September 9-21, 2006
 STS-116 December 9-22, 2006
 STS-117 March 15, 2007?
 STS-118 June 28, 2007?
 STS-120 August 26, 2007?

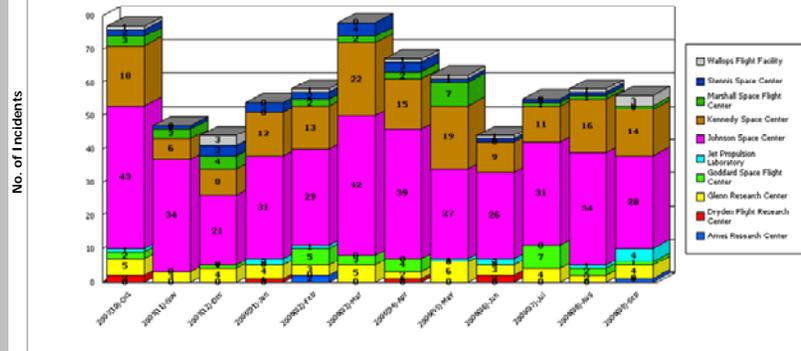
Note: Fiscal Year 2006 NASA Civil Service and Contractor Incidents combined.

Incident Type means "how it happened." Top ten are grouped together and totaled by NASA Site.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

NPR 8621.1B defines reportable safety incidents such as mishaps and close calls.

Incident Types : Acts of Nature,Electrical,Equipment,Leaks, spills, releases or contaminations,Miscellaneous,Vehicle Accident,Health Facility/Construction



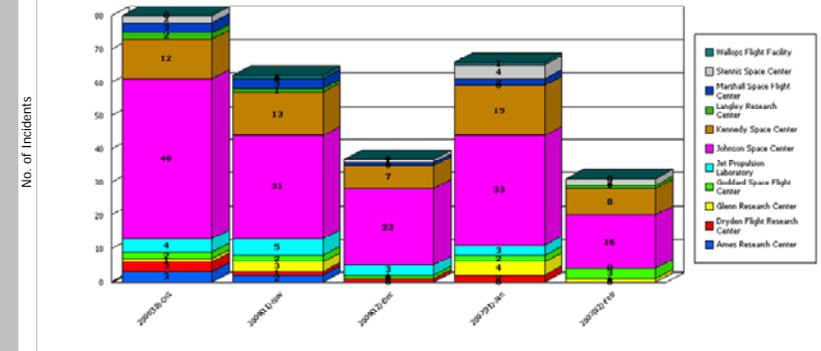
Note: Fiscal Year 2007 NASA Civil Service and Contractor Close Call Incidents combined.

Incident Type means "how it happened." Top ten are grouped together and totaled by NASA Site.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

NPR 8621.1B defines reportable safety incidents such as mishaps and close calls.

Incident Types : Equipment,Leaks, spills, releases or contaminations,Miscellaneous,Vehicle Accident,Health,Safety, Facility/Construction



Safety Incident Indicators

Period Type : Monthly
 From 02/01/2006 To 02/28/2007

Sites : All

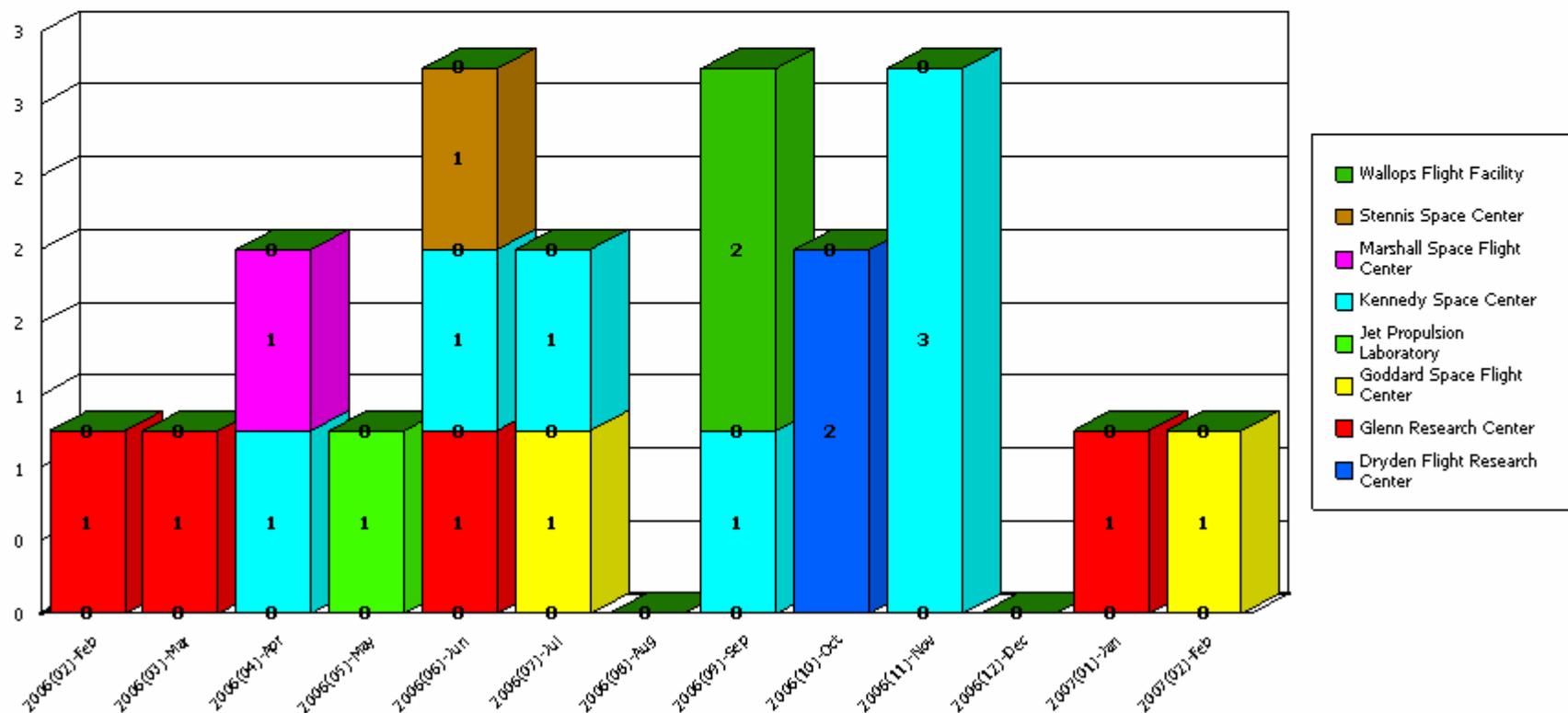
Incident Categories : Close Call

Incident Types : Facility/Construction

Date Type : Date of Incident

Organization Type : All Site Type : All

Report Source : All Case Status : All





Safety Incident Pareto Reports

Ex3's EHS Data Management System - Microsoft Internet Explorer

Address: https://nasa.ex3host.com/iris/newmenu/default.asp

Ex3's EHS Data Management System

Pareto

Pareto Type: Classification

Beginning Period: Classification

Ending Period: Classification

Site: Contractor

Campus: All

General Location: [Text Box] Clear

Organization Type: All

Indicator Type: No. of Incidents

Date Type: Date of Incident

Pareto By: All

Site Type: All

bold labels indicate required field - All date formats:(m/d/yyyy)

Callout Box:

- Classification
- Contractor
- Incident Category
- Incident Sub Type
- Potential Severity
- Probability
- RAC/Code
- Stennis Research Center
- Goddard Space Flight Center

- Used to assess trends and issues
- Should be drawn at a minimum quarterly
- More frequent paretos could be drawn on locations
- Should be used to deploy resources to locations of interest
- Assess reporting

Safety Incident Paretos

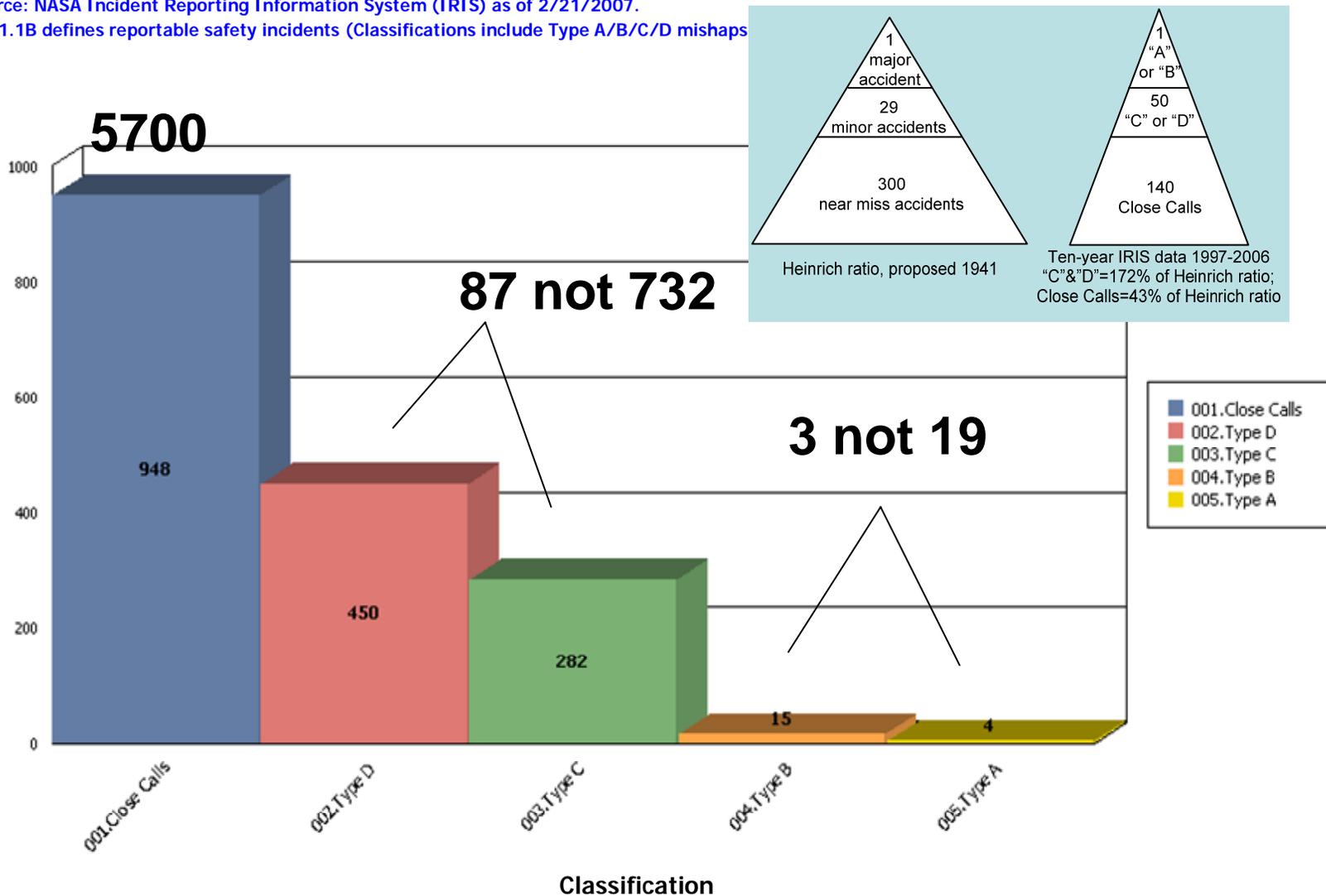
Pareto Type - Classification



Note: Fiscal Year 2006 NASA Civil Service and Contractor incidents combined.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

NPR 8621.1B defines reportable safety incidents (Classifications include Type A/B/C/D mishaps



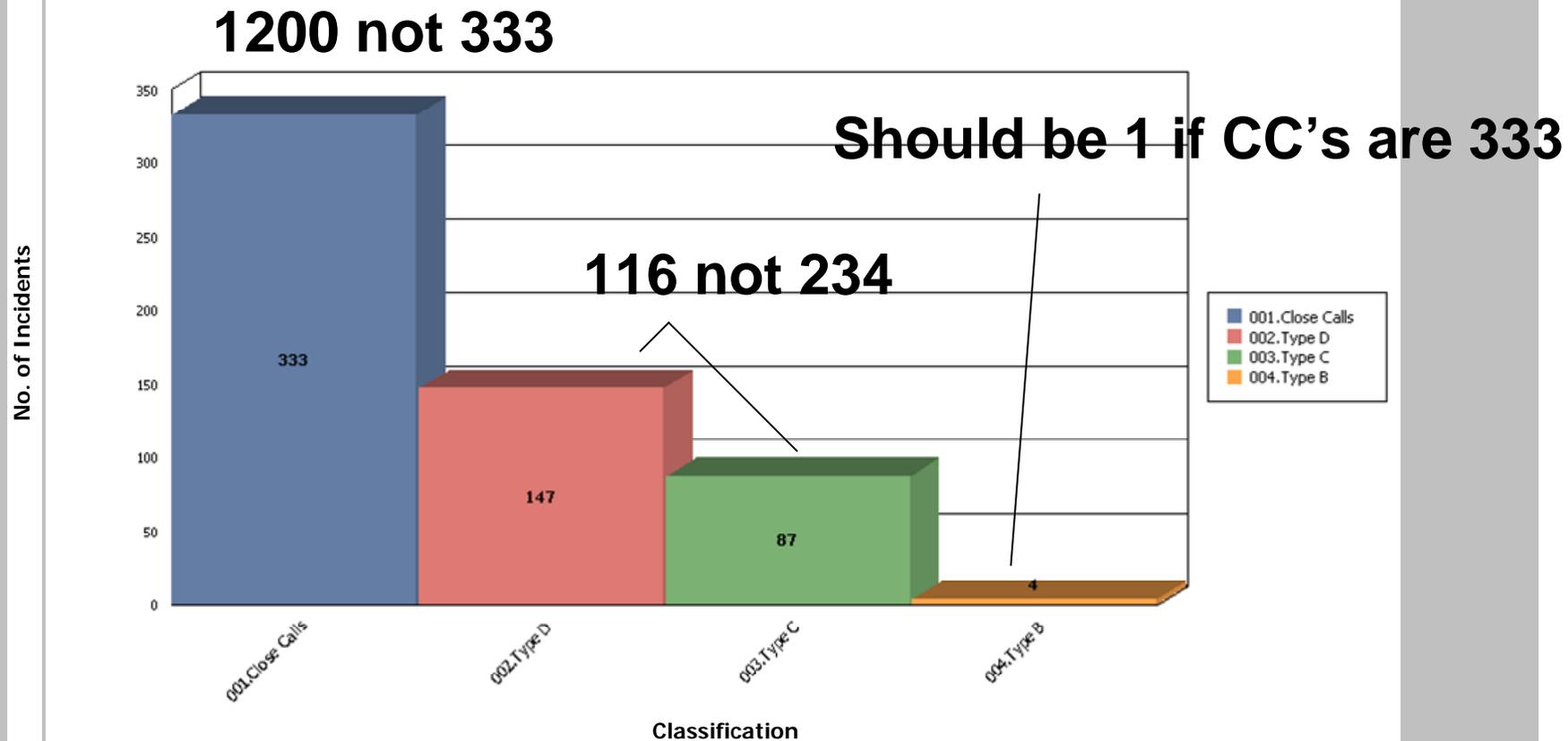
Safety Incident Paretos
Pareto Type - Classification



Note: Fiscal Year 2006 NASA Civil Service and Contractor incidents combined.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

NPR 8621.1B defines reportable safety incidents (Classifications include Type A/B/C/D mishaps and close calls).

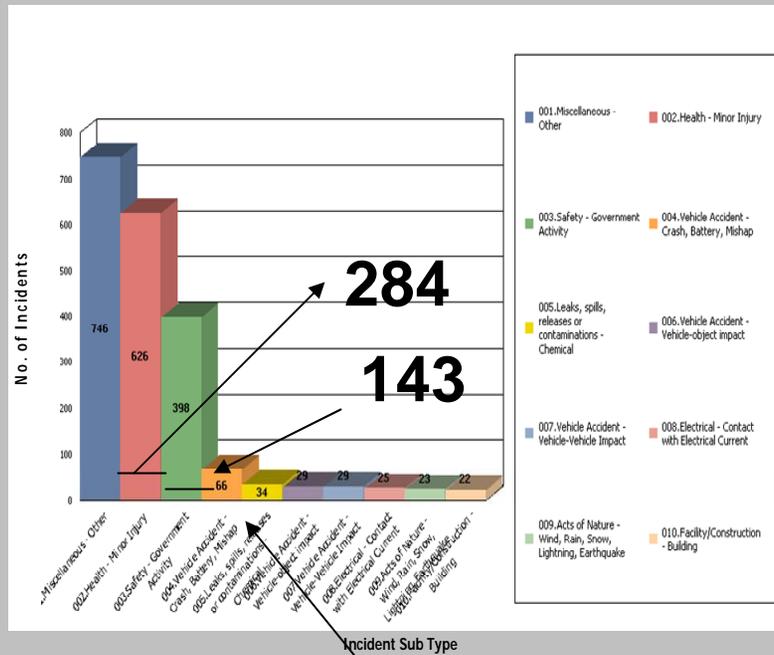




Safety Paretos-Incident Sub-type

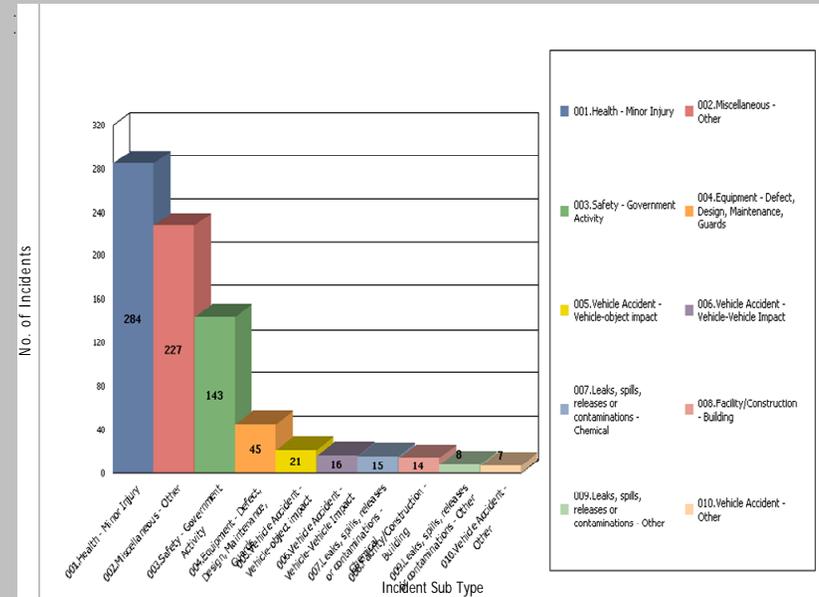
Safety Incident Paretos
Pareto Type - Incident Sub Type

Note: Fiscal Year 2006 NASA Civil Service and Contractors combined. Incident Subtype means "how it happened".
Data source: NASA Incident Reporting Information System (IRIS). Top ten Incident Subtypes shown as of 2/21/2007.
NPR 8621.1B defines reportable safety incidents such as mishaps and close calls.



Safety Incident Paretos
Pareto Type - Incident Sub Type

Note: Fiscal Year 2007 NASA Civil Service and Contractors combined. Incident Subtype means "how it happened".
Data source: NASA Incident Reporting Information System (IRIS). Top ten Incident Subtypes shown as of 2/21/2007.
NPR 8621.1B defines reportable safety incidents such as mishaps and close calls.



Incident Sub Type

Incident Sub Type

Vehicle Accidents Replaced in 2007 by Equipment defect, design, maintenance, guards



Injury/Illness Reports

Ex3's EHS Data Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://nasa.ex3host.com/iris/newmenu/default.asp

Ex3's EHS Data Management System

Injury Illness

- Case
- Visit
- My SIR
- Reports
 - Daily Log
 - OSHA300
 - OSHA301
 - OSHA200
 - OSHA300A
 - Work Loss
 - Investigation
 - Case Visit Details
 - Transition
 - Paretos
 - Indicators
 - Fatality Details
 - Fatality Summary
 - Case Statistics
 - Contractor Stats
 - Case Categories
 - Visit Categories
 - Visit List
- Action Request
- Safety Incident
- Corrective Incident
- Employee
- Headcount
- Schedule
- Technical Issue
- Administration
- General

Indicators

Period Type: Yearly

Beginning Period: January 1997

Ending Period: December 2007

Site: All

Campus: All

General Location: [Search] [Clear]

Employee Type: All

Injury/Illness: Injury

Injury/Illness Type: Avulsion

Indicator Type: Case Numbers

Case Type: Occ - Non Recordable Non-Injury or Non-Illness

Date Type: Date of Injury

Site Type: <<Select Site Type>>

Run Report **Clear**

Category Type: All, includes Civil Servants and Contractors only.
bold labels indicate required field - All date formats:(m/d/yyyy)

Injury Illness

Case

Visit

My SIR

Reports

Daily Log

OSHA300

OSHA301

OSHA200

OSHA300A

Work Loss

Investigation

Case Visit Details

Transition

Paretos

Indicators

Fatality Details

Fatality Summary

Case Statistics

Contractor Stats

Case Categories

Visit Categories

Visit List

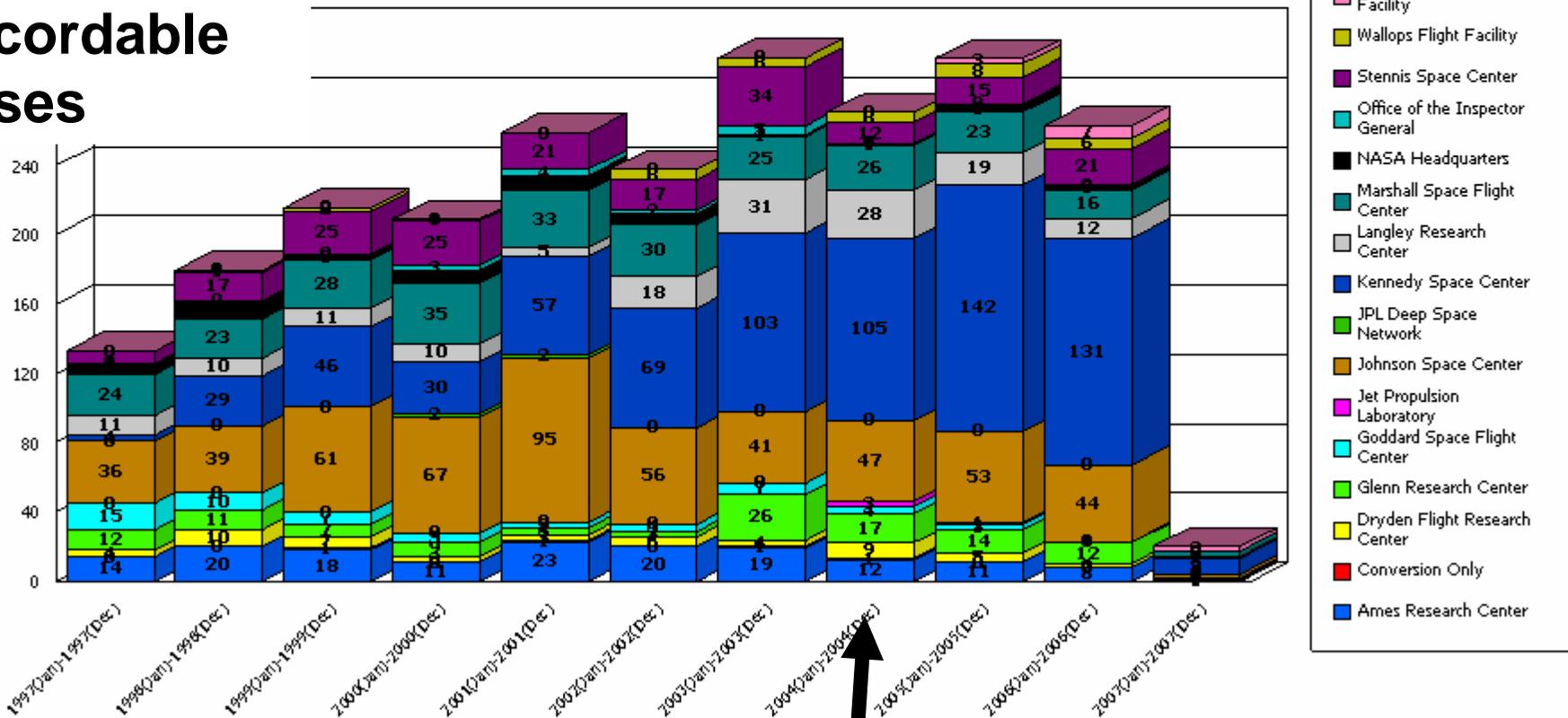


Injury/Illness Indicators Reports

- Used to assess trends and issues
- Should be drawn at a minimum quarterly
- More frequent paretos could be draw on locations
- Should be used to deploy resources to locations of interest

Year Report indicates increase in Recordable Cases

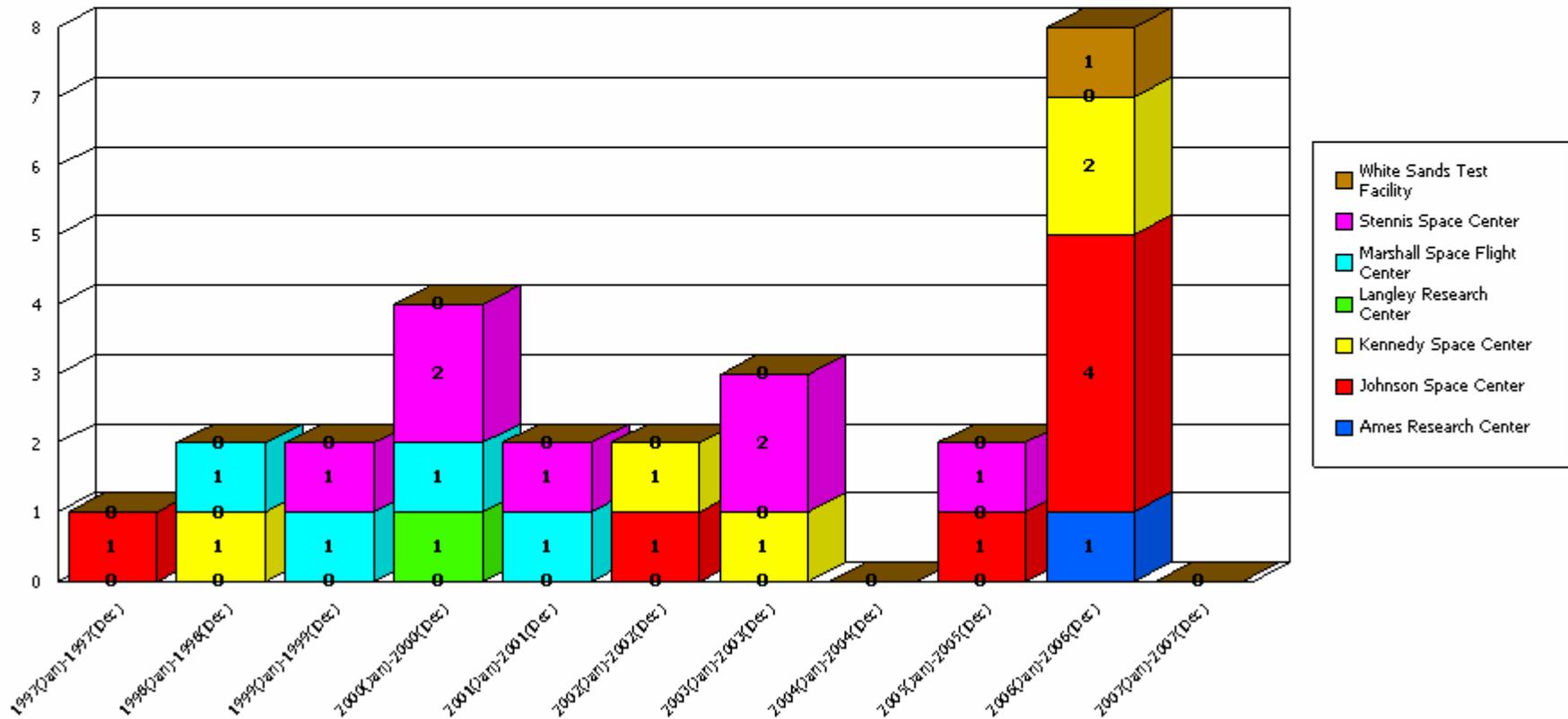
Injury Illness Indicators
 Period Type : Yearly
 From 01/01/1997 To 12/31/2007
 Case Type : Occ - OSHA Record - Rest. Days Only, Occ - OSHA Record - Days Away
 Sites : All
 Indicator Type : Case
 Injury/Illness : All
 Injury/Illness Type : All
 Employee Type : All Date Type : Date of Injury Site Type : All



WALUBIC 11/11

Injury Illness Indicators
 Period Type : Yearly
 From 01/01/1997 To 12/31/2007
 Case Type : Occ - OSHA Record - Rest. Days Only, Occ - OSHA Record - Days Away
 Sites : All
 Indicator Type : Case
 Injury/Illness : Injury
 Injury/Illness Type : Bites or Sting
 Employee Type : All Date Type : Date of Injury Site Type : All

ten year indicators on bites and stings



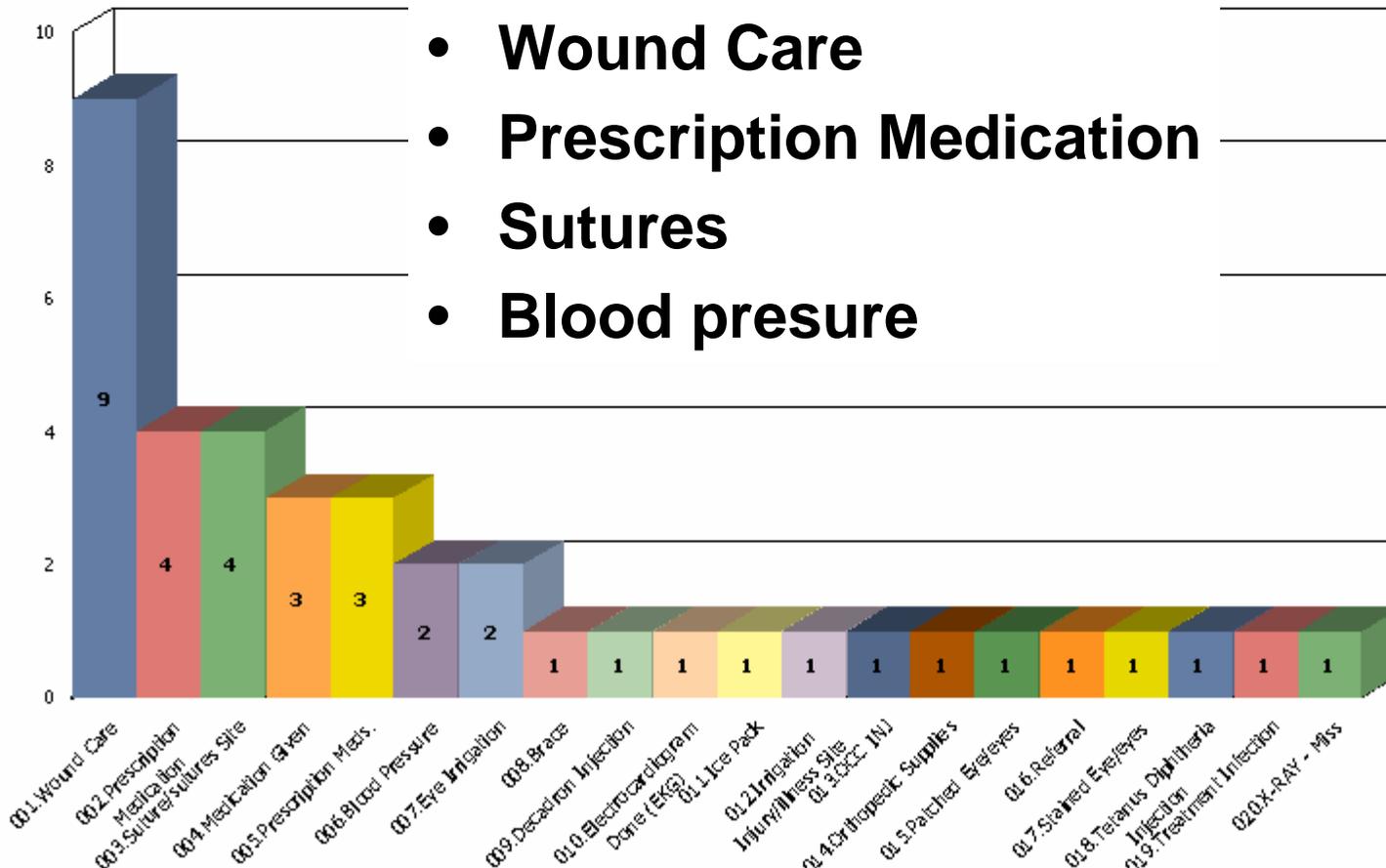


Injury/Illness Paretos Reports

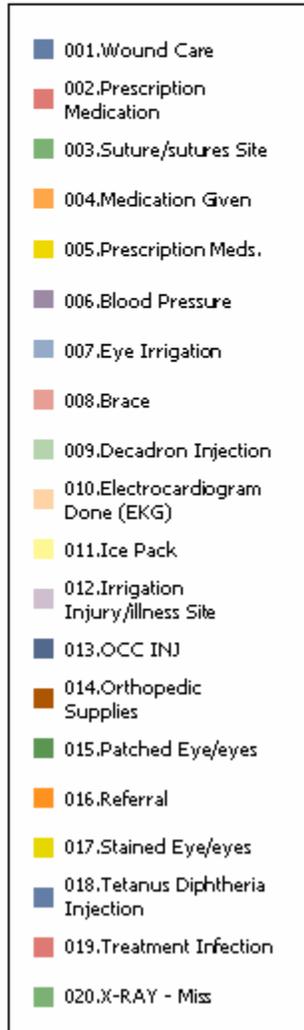
The screenshot shows the 'Ex3's EHS Data Management System' interface. The 'Paretos' section is active, displaying various filter options. A callout box highlights the 'Pareto By' dropdown menu, which lists the following categories: Injury/Illness Type, Gender, Investigation Status, Job Type, Loss Severity, Marital Status, Potential Severity, Probability, RAC/Code, Root Cause, and Treatment. The 'Injury/Illness Type' option is currently selected and highlighted in blue. Other filters visible include 'Beginning Period', 'Ending Period', 'Case Type', 'Site', 'Campus', 'General Location', 'Indicator Type', 'Date Type', 'Pareto By', 'Site Type', and 'Employee Type'. A note at the bottom of the interface states: 'bold labels indicate required field - All date formats'.

- Used to assess trends and issues
- Should be drawn at a minimum quarterly
- More frequent paretos could be drawn on locations
- Should be used to deploy resources to locations of interest

Injury Illness Paretos
Pareto Type - Treatment
From 10/01/2006 To 02/28/2007
Date Type : Date of Injury
Employee Type : All
Case Type : All
Sites : All
Site Type : All



- **Wound Care**
- **Prescription Medication**
- **Sutures**
- **Blood pressure**



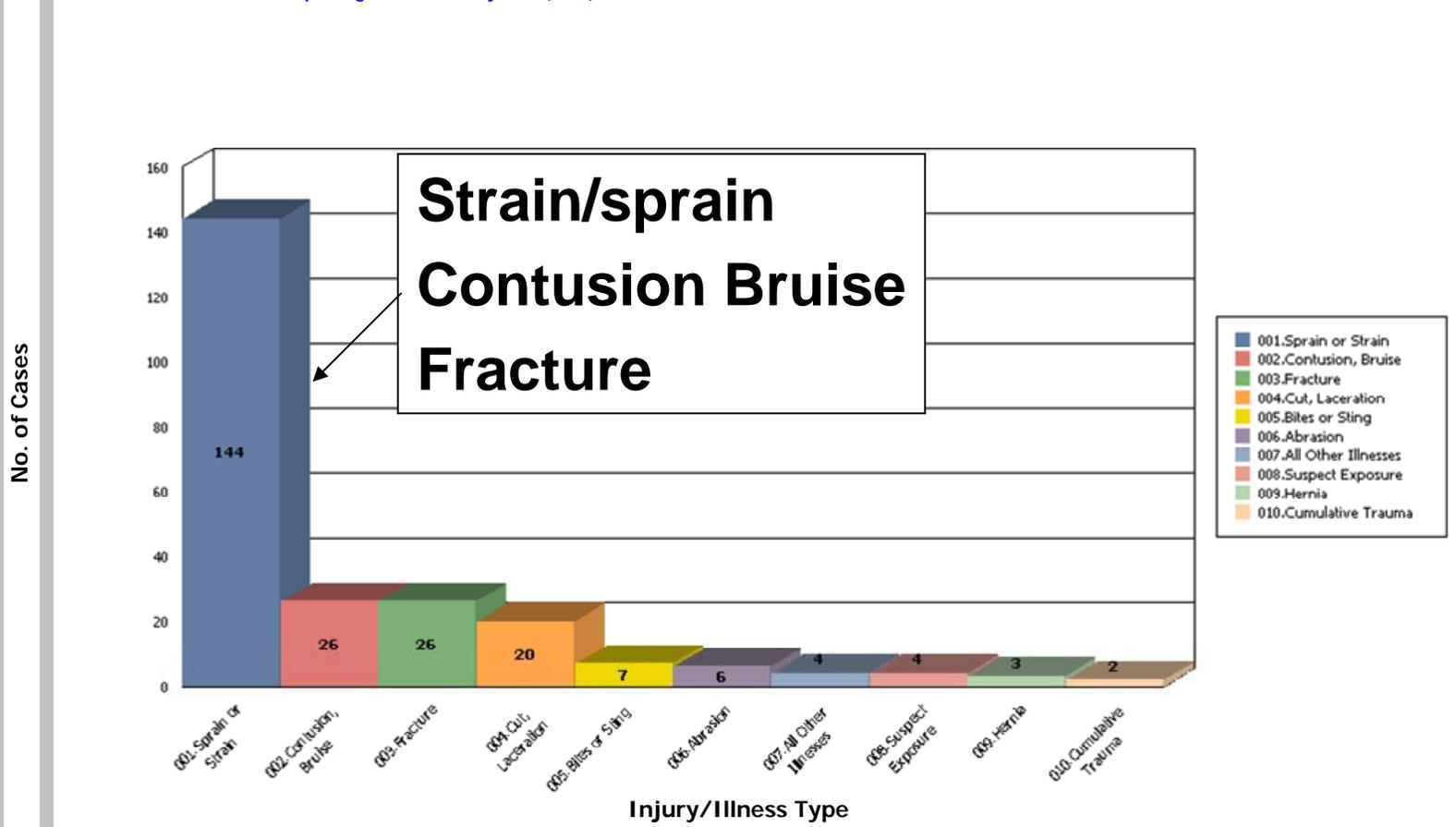


Pareto Type - Injury/Illness Type

Note: Fiscal Year 2006 NASA Civil Service and Contractor combined.

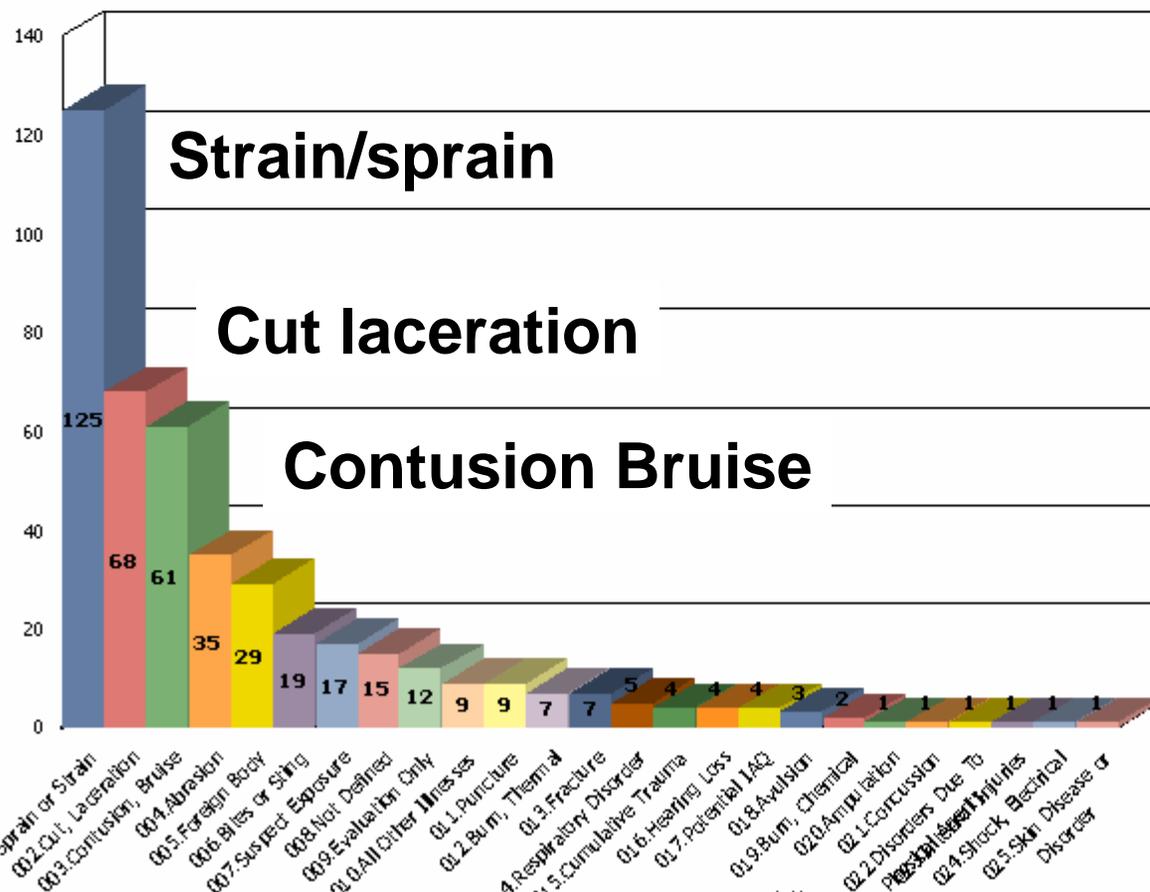
Injury/Illness Type corresponds to US Bureau of Labor Statistics "Nature": principal characteristic(s) of an injury or illness.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.



FY07

Injury Illness Paretos
 Pareto Type - Injury/Illness Type
 From 10/01/2006 To 02/28/2007
 Date Type : Date of Injury
 Employee Type : All
 Case Type : All
 Sites : All
 Site Type : All





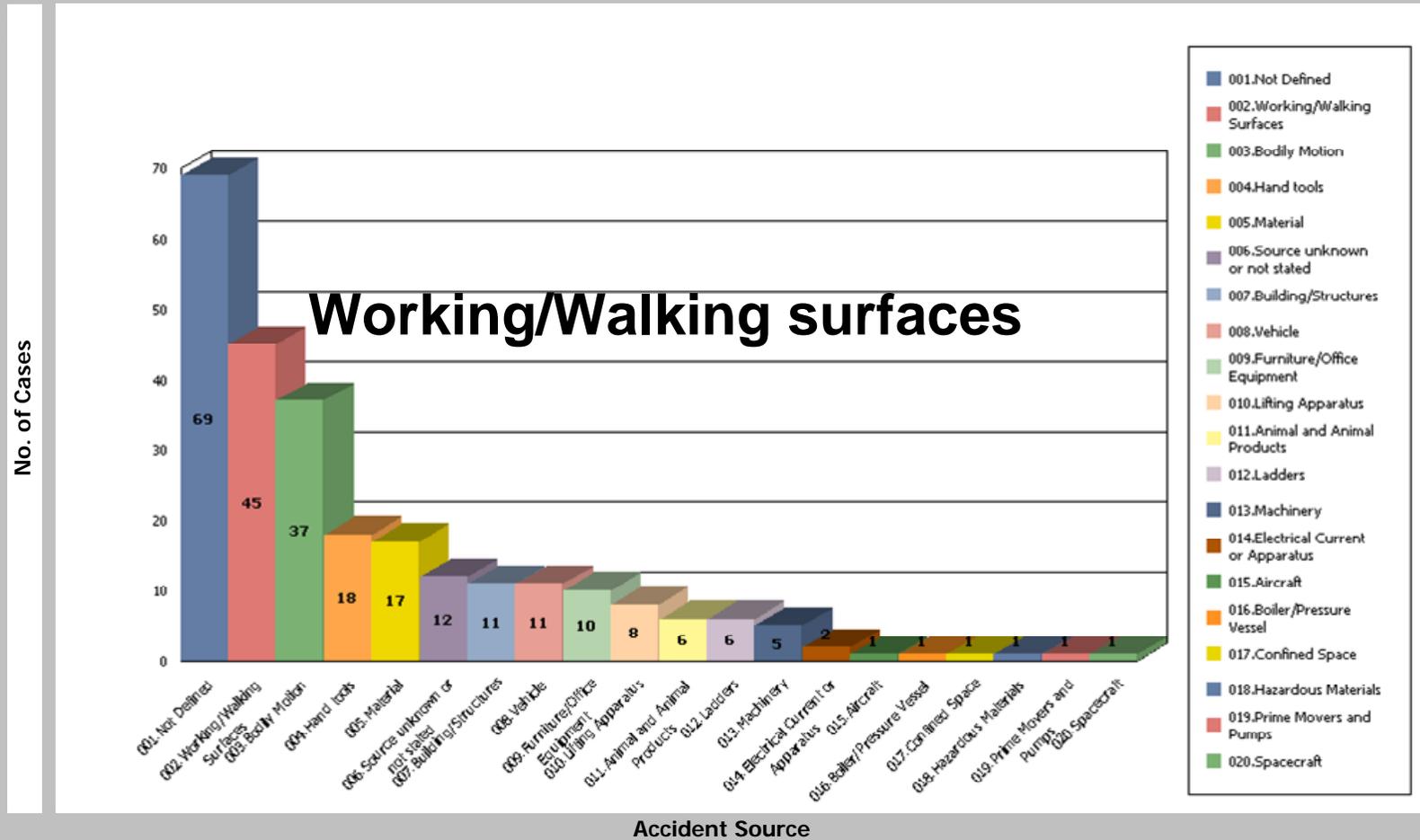
Injury Illness Paretos Pareto Type - Accident Source

Note: Fiscal Year 2006 NASA Civil Service and Contractor combined lost-time and restricted-days incidents.

US Bureau of Labor Statistics defines Accident Source as the object, substance, element or bodily motion that directly produces a work-related injury or illness.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

NPR 8621.1B defines NASA mishaps for occupational injury/illness impact.



Injury Illness Paretos

Pareto Type - Accident Source

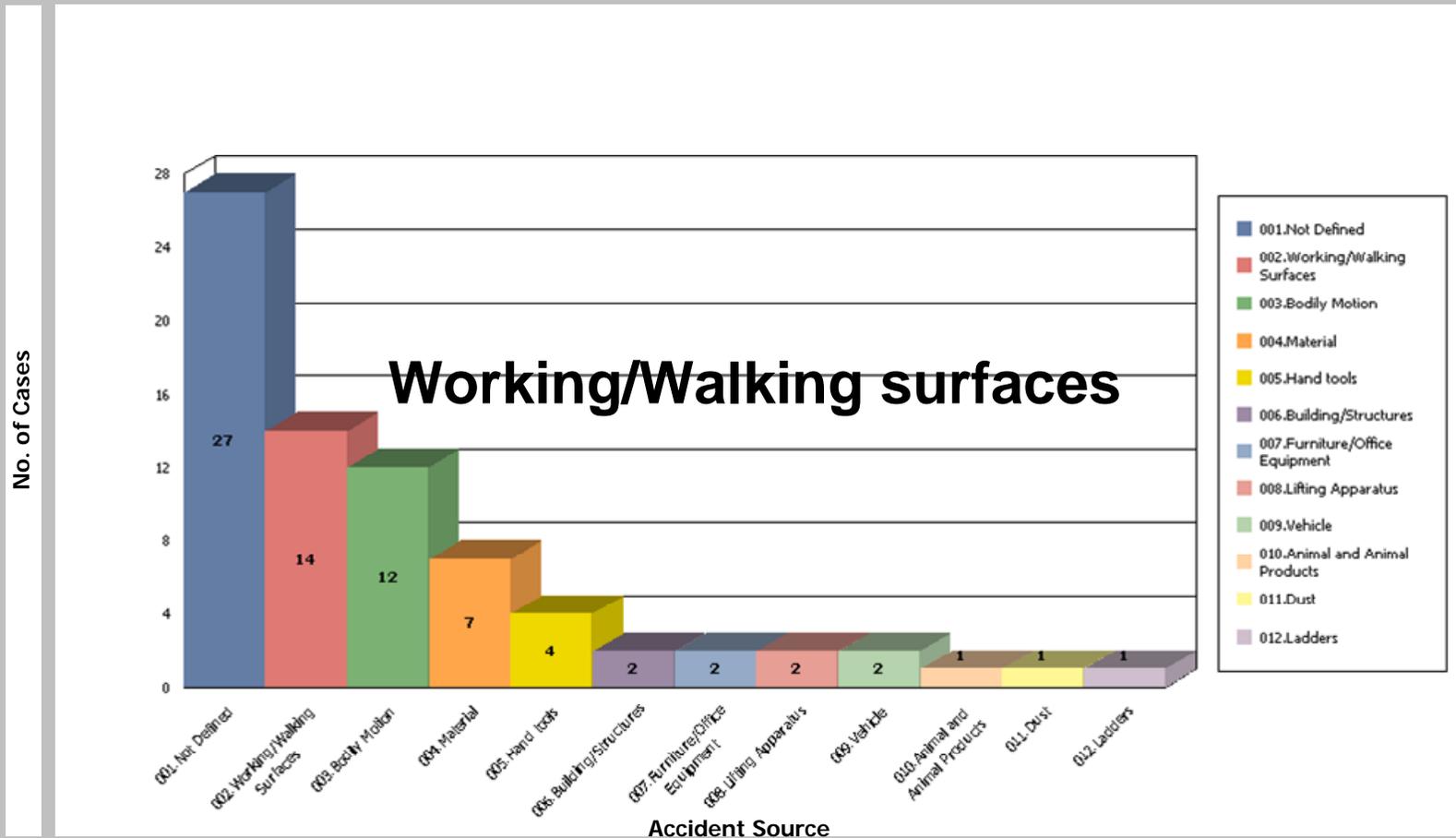


Note: Fiscal Year 2007 NASA Civil Service and Contractor combined lost-time and restricted-days incidents.

US Bureau of Labor Statistics defines Accident Source as the object, substance, element or bodily motion that directly produces a work-related injury or illness.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

NPR 8621.1B defines NASA mishaps for occupational injury/illness impact.



Injury Illness Pareto Pareto Type - Accident Type

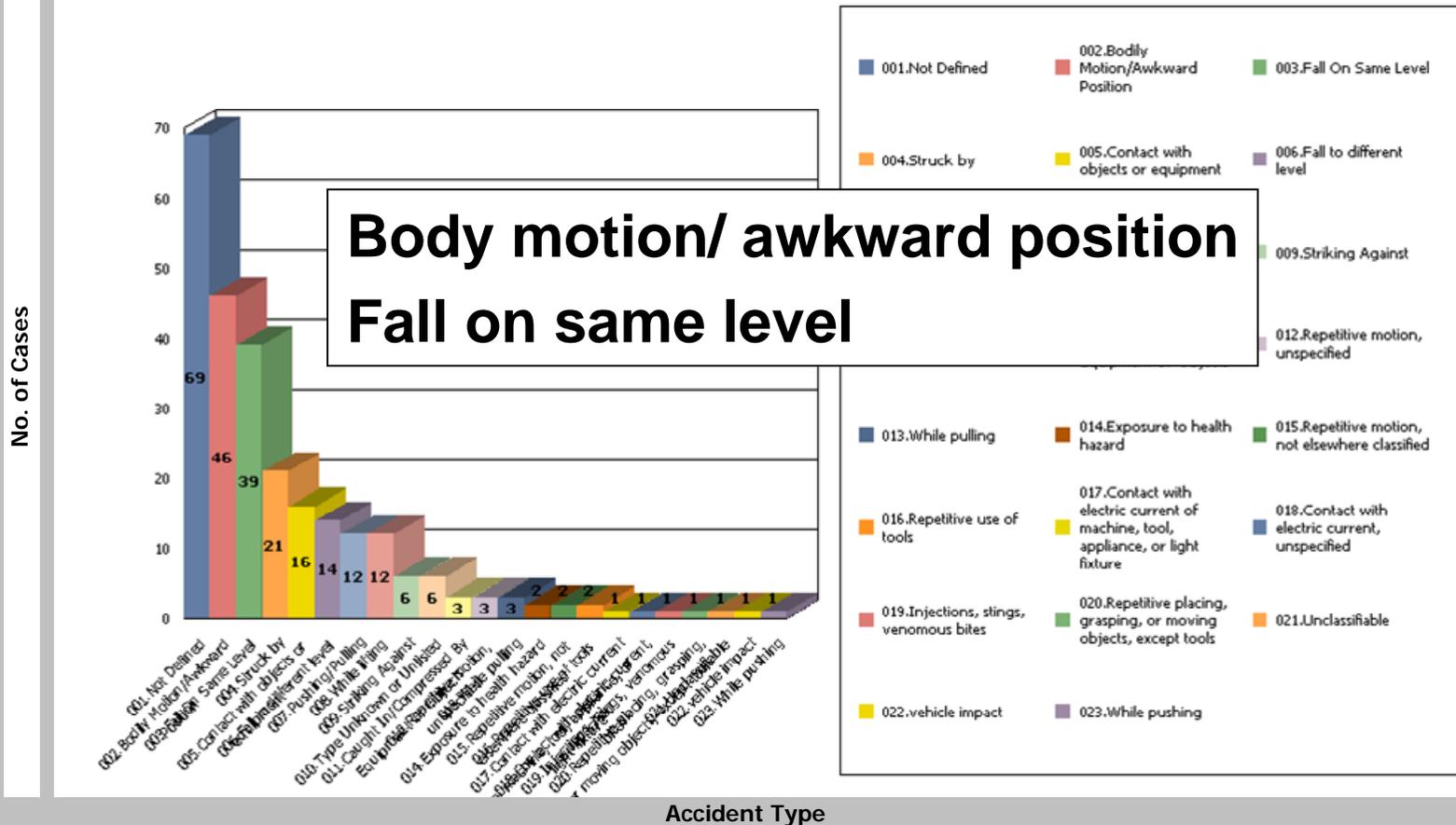


Note: Fiscal Year 2006 NASA Civil Service and Contractor combined lost-time and restricted-days incidents.

Accident Type corresponds to US Bureau of Labor Statistics "Event or Exposure": how a Source inflicted a work-related injury or illness.

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

NPR 8621.1B defines NASA mishaps for occupational injury/illness impact. "Accident" is an OSHA reporting term used in IRIS.



Body motion/ awkward position
Fall on same level

Injury Illness Paretos Pareto Type - Accident Type

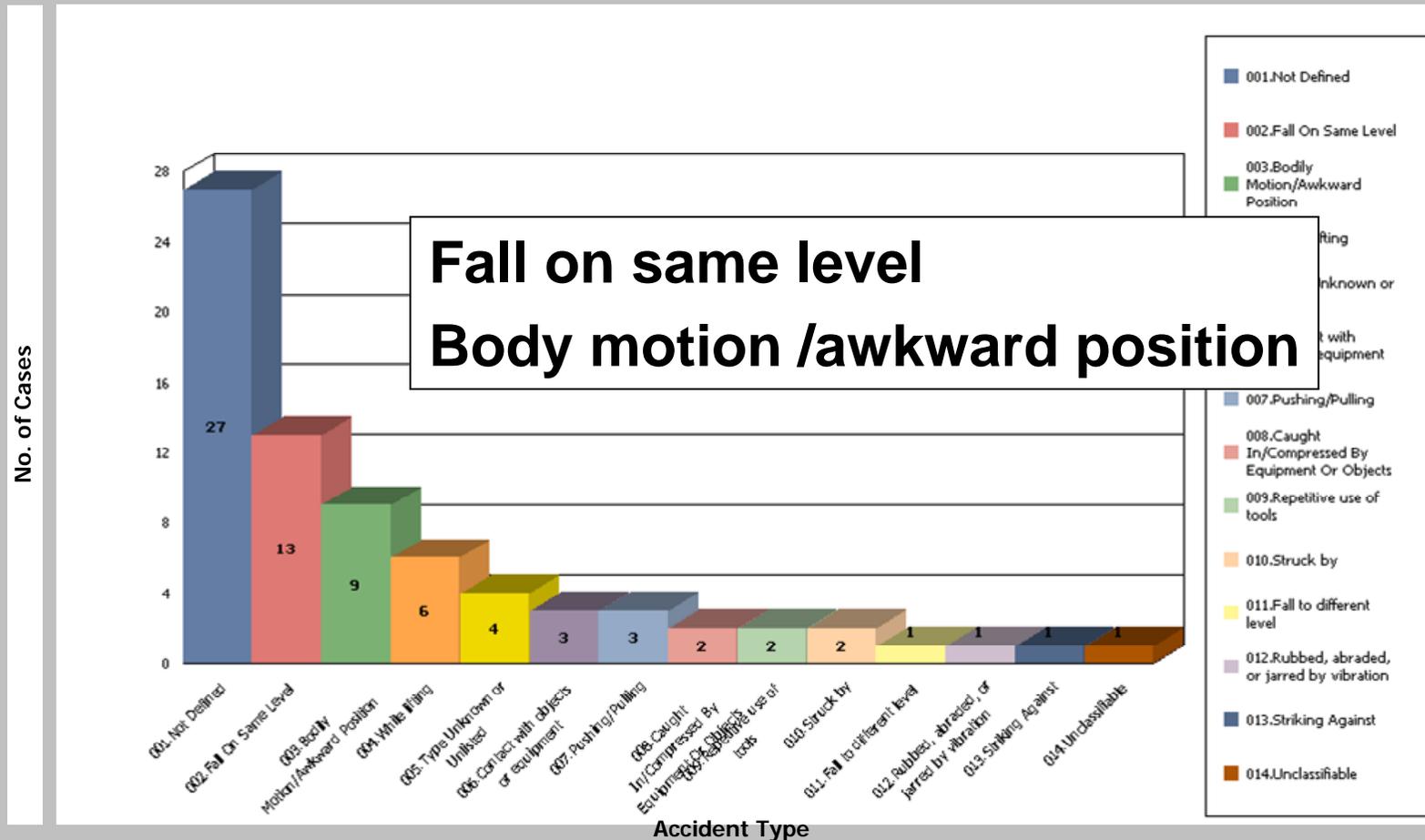


Note: Fiscal Year 2007 NASA Civil Service and Contractor combined lost-time and restricted-days incidents.

Accident Type corresponds to US Bureau of Labor Statistics "Event or Exposure": how a Source inflicted a work-related injury or illness .

Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.

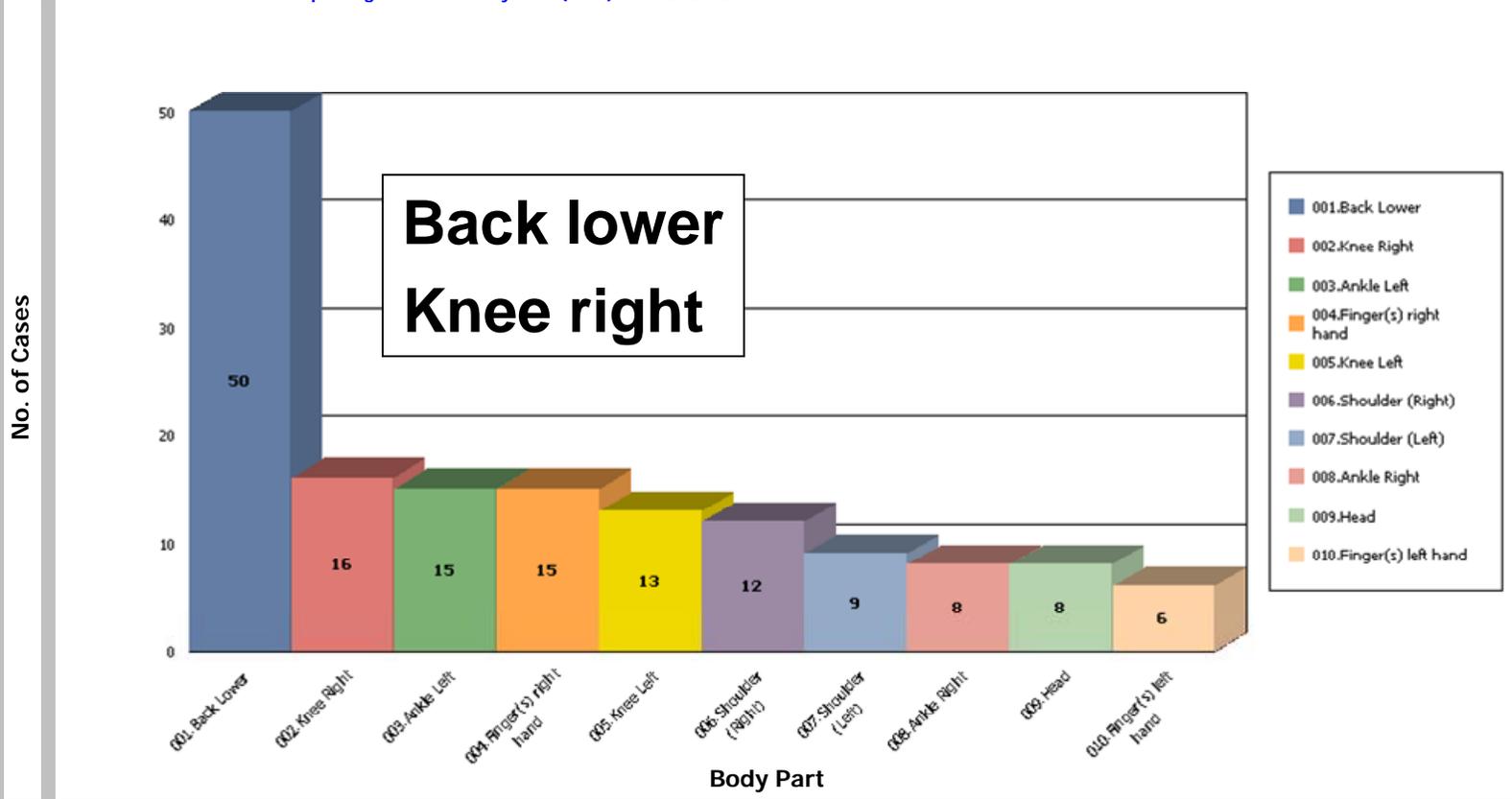
NPR 8621.1B defines NASA mishaps for occupational injury/illness impact. "Accident" is an OSHA reporting term used in IRIS.



Injury Illness Paretos
Pareto Type - Body Part



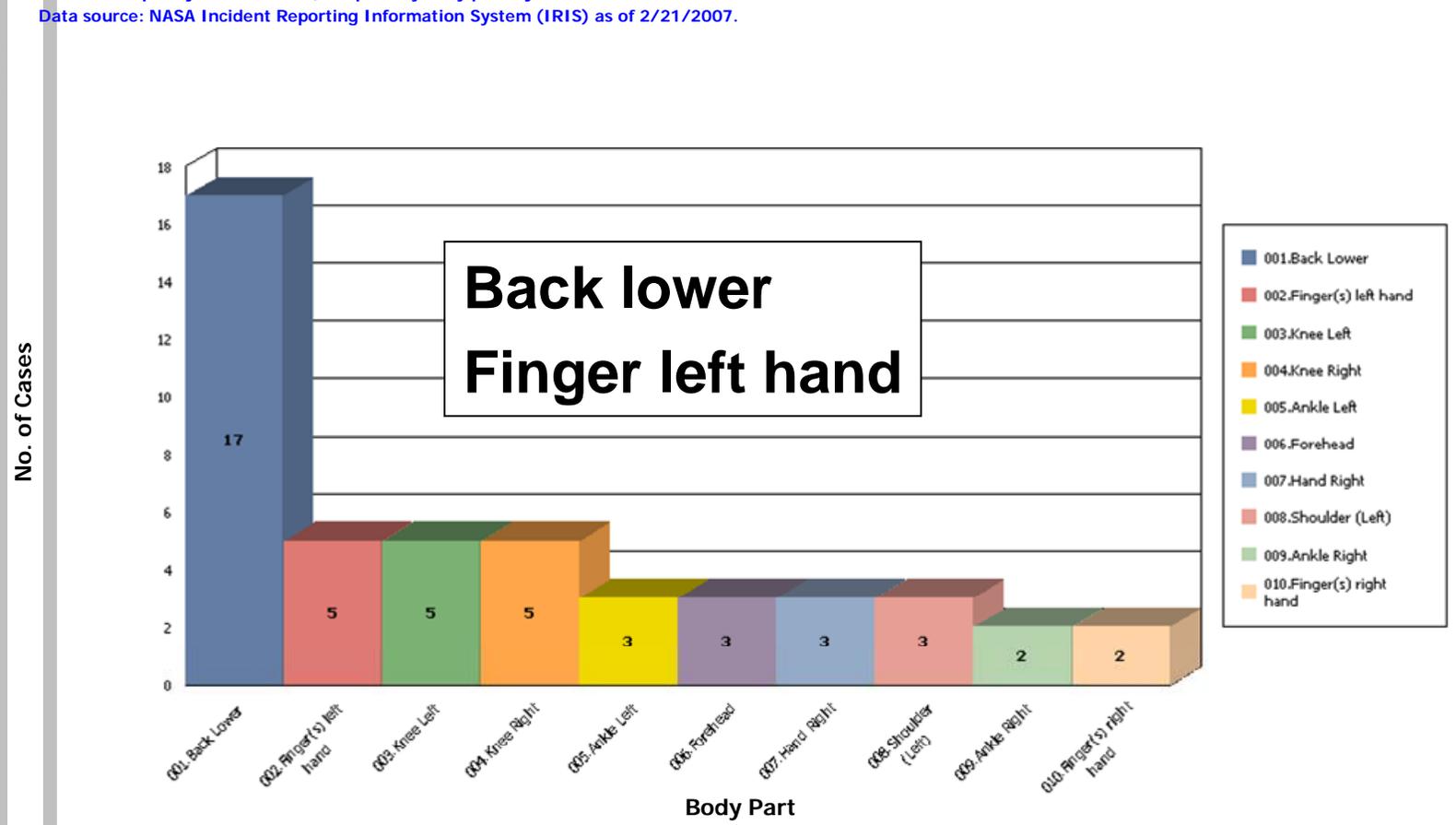
Note: Fiscal Year 2006 NASA Civil Service and Contractors Lost-time and Restricted Days cases combined.
Where multiple injuries occurred, the primary body part injured is counted.
Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.



Injury Illness Paretos Pareto Type - Body Part



Note: Fiscal Year 2007 NASA Civil Service and Contractors Lost-time and Restricted Days cases combined.
Where multiple injuries occurred, the primary body part injured is counted.
Data source: NASA Incident Reporting Information System (IRIS) as of 2/21/2007.





Detail Cause Analysis Report

Report Parameters :

Start Date : 01/26/2006	Country : United States of America
End Date : 02/25/2007	Site : Glenn Research Center
Organization Type : All	

Site **Glenn Research Center**

<u>Root Cause</u>	<u>Direct Damage Cost</u>
<<<UNDEFINED>>>	0.00
Walking Work Surface:Floor Surface	900.00
Walking Work Surface:Stairs	0.00
Walking Work Surface:Ladders	0.00
Electric Comp: Power Line/electrical Wiring	11518.00
COMMUNICATION:Task Coordination/Planning Inadequate	3000.00
EQUIPMENT FAILURE:General	2085.00
EQUIPMENT FAILURE:Maintenance	1350.00
EQUIPMENT FAILURE:Material Defects	7000.00
EQUIPMENT FAILURE:Material Failure	6000.00
HANDLING:General	251.00
HAZARDOUS OPERATION:General	0.00
HAZARDOUS OPERATION:Improper Protection	0.00
HUMAN FACTORS:General	0.00
HUMAN FACTORS:Lack of Attention	2922.47
HUMAN FACTORS:Lack of Experience	0.00
HUMAN FACTORS:Judgment of Conditions	0.00
HUMAN FACTORS:Working Environment	0.00
NATURAL PHENOMENON:General	0.00
NATURAL PHENOMENON:Wind	0.00
ORGANIZATIONAL DEFICIENCY:General	0.00
OTHER:Other	2561.71
PROCEDURE: General	500.00
PROCEDURE:Procedure Deficiency	7000.00
PROCEDURE:Technical Data Deficiency	30321.00
HAZARDOUS OPERATION:Unsafe Equipment	900.00

Power line
Procedure: Tech data def.

Totals For Glenn Research Center	Injury Cases 79	Damage Cases 33	Total Direct Damage 76309.18
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Damage Report

Report Parameters:

Beginning Period : 2006-Feb
Country : United States of America
Campus : All
Resp. Directorate : All
Contractor : All
Site Type : All

Ending Period : 2007-Feb
Site : Glenn Research Center
General Location : All
Resp. Organization : All
Contract : All

	Total Incidents	Type A		Type B		Type C		Type D		Close Call		Total Damages for all Incidents
		Count	Damage	Count	Damage	Count	Damage	Count	Damage	Count	Damage	
Responsible Org : 0100 - 0100-Office of the Director												
0100-Office of the Director	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
ORG. GROUP TOTALS	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Responsible Org : 0100 - 0120 - OFFICE OF THE CHIEF COUNSEL												
0120 - OFFICE OF THE CHIEF COUNSEL	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
ORG. GROUP TOTALS	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Responsible Org : 0100 - 0120-Office of the Chief Counsel												
0120-Office of the Chief Counsel	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
ORG. GROUP TOTALS	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Responsible Org : 0100 - 0140 - AEROPROPULSION RESEARCH PROGRAM OFF												
0140 - AEROPROPULSION RESEARCH PROGRAM OFF	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
ORG. GROUP TOTALS	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Responsible Org : 0100 - 0140-Aeropropulsion Research Program Office												
0140-Aeropropulsion Research Program Office	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
ORG. GROUP TOTALS	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Responsible Org : 0100 - 0141 - SPECIAL PROJECTS OFFICE												
0141 - SPECIAL PROJECTS OFFICE	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
ORG. GROUP TOTALS	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Responsible Org : 0100 - 0142 - HYPERSONICS PROJECT OFFICE												
0142 - HYPERSONICS PROJECT OFFICE	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
ORG. GROUP TOTALS	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
Responsible Org : 0100 - 0160-Office of the Inspector General												



Case Statistics Report

Report Parameters:

Beginning Period : 2006-Jan
Country : United States of America
Site : Glenn Research Center
Site Type : All

Ending Period : 2007-Jan
Period Type : Monthly
Employee Type : All
Grouping : NASA Level

pr_rpt_gen;1.s_period_to (String)

	Total Cases		Occ Cases		Non-Occ Cases		First Aid Cases		Fatality Cases		Related Incidents		Lost Time Cases		Lost Time		Restricted Cases		Restricted		Hours Worked	Avg Employees
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Days	Rate	Count	Rate	Days	Rate		
2006(01)-Jan	8	3.25	8	3.25	0	0.00	4	1.63	0	0.00	8	3.25	0	0.00	0	0.00	0	0.00	0	0.00	491755.50	2562
2006(02)-Feb	7	2.90	7	2.90	0	0.00	3	1.24	0	0.00	7	2.90	0	0.00	0	0.00	0	0.00	0	0.00	482209.60	2566
2006(03)-Mar	16	6.23	15	5.84	1	0.39	3	1.17	0	0.00	16	6.23	0	0.00	0	0.00	1	0.39	8	3.12	513432.45	2568
2006(04)-Apr	14	5.56	13	5.16	1	0.40	7	2.78	0	0.00	14	5.56	0	0.00	0	0.00	0	0.00	0	0.00	503425.55	2645
2006(05)-May	7	2.80	5	2.00	2	0.80	3	1.20	0	0.00	6	2.40	1	0.40	112	44.88	0	0.00	111	44.48	499117.25	2615
2006(06)-Jun	8	3.20	8	3.20	0	0.00	5	2.00	0	0.00	7	2.80	0	0.00	0	0.00	2	0.80	9	3.60	500450.75	2619
2006(07)-Jul	10	4.13	8	3.31	2	0.83	3	1.24	0	0.00	8	3.31	0	0.00	0	0.00	1	0.41	2	0.83	484015.35	2638
2006(08)-Aug	16	6.17	16	6.17	0	0.00	11	4.24	0	0.00	16	6.17	1	0.39	31	11.95	1	0.39	26	10.03	518672.45	2648
2006(09)-Sep	7	2.74	7	2.74	0	0.00	3	1.17	0	0.00	6	2.35	1	0.39	1	0.39	0	0.00	0	0.00	510933.00	2661
2006(10)-Oct	10	4.02	10	4.02	0	0.00	5	2.01	0	0.00	10	4.02	1	0.40	6	2.41	1	0.40	7	2.81	497861.60	2635
2006(11)-Nov	4	1.64	4	1.64	0	0.00	3	1.23	0	0.00	3	1.23	0	0.00	0	0.00	0	0.00	0	0.00	487153.35	2643
2006(12)-Dec	7	2.73	5	1.95	2	0.78	4	1.56	0	0.00	4	1.56	0	0.00	0	0.00	0	0.00	0	0.00	512409.00	2651
2007(01)-Jan	6	2.48	6	2.48	0	0.00	5	2.07	0	0.00	3	1.24	0	0.00	0	0.00	0	0.00	0	0.00	483690.05	2655
GROUP TOTALS	120	3.70	112	3.45	8	0.25	59	1.82	0	0.00	108	3.33	4	0.12	150	4.63	6	0.19	163	5.03	6485125.90	2623
GRAND TOTALS	120	3.70	112	3.45	8	0.25	59	1.82	0	0.00	108	3.33	4	0.12	150	4.63	6	0.19	163	5.03	6485125.90	2623



Action Request Reports

Ex3's EHS Data Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Internet Explorer

Address: https://nasa.ex3host.com/iris/newmenu/default.asp

Ex3's EHS Data Management System

Injury Illness Action Request

- Create
- Manage
- Dist List
- ▲Reports
 - Review
 - Tracking

Safety Incident

- Corrective Incident
- Employee
- Headcount
- Schedule
- Technical Issue
- Administration
- General

Indicators

Period Type: Yearly

Beginning Period: January 1997

Ending Period: December 2007

Site: All

- Ames Research Center
- Dryden Flight Research Center
- Glenn Research Center

Campus: All

General Location: [Search] [Clear]

Employee Type: All

Injury/Illness: Injury

Injury/Illness Type: Avulsion, Bites or Sting, Burn, Chemical, Burn, Thermal

Indicator Type: Case Numbers

Case Type: Occ - Non Recordable Non-Injury or Non-Illness, Occ - OSHA Record - Days Away, Occ - OSHA Record - Other, Occ - OSHA Record - Rest. Days Only

Date Type: Date of Injury

Site Type: <<Select Site Type>>

[Run Report] [Clear]

Category Type: All, includes Civil Servants and Contractors only.
bold labels indicate required field - All date formats:(m/d/yyyy)

Injury Illness
Action Request

Create

Manage

Dist List

▲Reports

Review

Tracking

Safety Incident

Pe
Bo
E
Si

AR REVIEW REPORT

Report Parameters:

Sched. Comp From Date : 01/26/2006
AR Super Types : All
Country : United States of America
Organization Type : All
Directorate : All
Contractor : All

Sched. Comp To : 02/25/2007
AR Types : All
Site : Glenn Research Center
Organization : All
Contract : All

Press SPACEBAR or ENTER to activate and use this control

AR Owner	All ARs	Closed ARs	Open ARs	Overdue ARs	Days Past Due	Days Until Next AR Due	Next AR Due Date
ett, William R	1	1	0	0	0	0	
OMINO, ANTHONY M.	1	1	0	0	0	0	
n, Mark L	1	1	0	0	0	0	
RGE, MARK A	1	1	0	0	0	0	
FMAN, THOMAS R.	1	1	0	0	0	0	
phrey, Daniel G	1	1	0	0	0	0	
, THOMAS A.	1	0	1	1	277	-277	05/24/2006
RNS, KIMBERLY A.	1	0	1	1	208	-208	08/01/2006
o, Suzanne	2	1	1	1	248	-248	06/22/2006
ALI, GENE	1	1	0	0	0	0	
, Thomas L	2	2	0	0	0	0	
Totals :	13	10	3	3	Avg : 66.64	Avg : -66.64	

AR TRACKING REPORT

Report Parameters:

AR Date From : 1/26/2006 AR Number : All AR Status : Open Status AR Ownership Status : All Country : United States of America Organization Type : All Directorate : All Contractor : All	AR Date To : 2/25/2007 AR Super Type : All AR Type : All AR General Type : All Site : Glenn Research Center Organization : All Contract : All
---	--

Number Name	Status AR Super Type	AR Type AR General Type	Scheduled Comp Date Actual Comp Date	AR Assigned To AR Assigned By	Directorate Organization	Contractor Contract
06-130-003 In Research Center	In Progress Safety Incidents	Safety Incident AR Primary	05/24/2006	JETT, THOMAS A. GEORGE, MARK A	D000 - ENGINEERING DRB0 - AVIATION E	n/a n/a
Title	: Laser Window Failure Recommendations					
Action To Take	: * Conduct tests with the main air flow orifice removed (calculate flow from inlet casing wall static measurements). This will reduce the inlet pipe restriction and allow the fan inlet pressure to be closer to atmospheric pressure, minimize					
Action Taken	: n/a					
06-159-001 In Research Center	In Progress Injury/Illness	Injury/Illness AR Primary	06/22/2006	Otero, Suzanne Ripley, Deborah A	Q000 - SAFETY & M Q000 - SAFETY & M	n/a n/a
Title	: Case Transfer to Headquarters					
Action To Take	: This is an ARMY employee who is assigned to Directorate Z000 and supports Code RPT. According to the Glenn Organizational List, it indicates this Directorate is a NASA HQ Office located at Glenn; therefore; the Home Center (HQ) will need to handle the OSH					
Action Taken	: n/a					
06-241-002 In Research Center	In Progress Safety Incidents	Safety Incident AR Primary	08/01/2006	KEARNS, KIMBERLY A. GEORGE, MARK A	D000 - ENGINEERING DRH0 - SPACE COMB	n/a n/a
Title	: Flex Hose at B35 Complex					
Action To Take	: Remove "bulged" Flex Hose and secure open end with pipe cap					
Action Taken	: Line has been removed and open end capped. Pictures included in Attachments					



Audit reports

Ex3's EHS Data Management System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Address <https://nasa.ex3host.com/iris/newmenu/default.asp>

Ex3's EHS Data Management System

Ex3

Audit

Injury Illness
Action Request
Safety Incident
New
Find
▲Reports
Incident Log
Indicators
Paretos
Detail Cause
AR Reports
Center Safety
Damage Report
Audit

Corrective Incident
Employee
Headcount
Schedule
Technical Issue
Administration
General

Audit From: 1/26/2007 **Audit To:** 2/25/2007

Country: United States of America

Site: All
Ames Research Center
Dryden Flight Research Center
Glenn Research Center
Goddard Space Flight Center

Organization Type: All

Status: All
Closed
Dropped
Initial Report
Open Pending Corrective Action

Report Output: HTML

Report Sections: All

Spread sheet

Run Report Clear



Ex3's EHS Data Management System

NASA Audit Report - Compliance with NPR 8621.1

Incident Date:10/1/2006 to 2/22/2007

Date of Evaluation:02/22/2007

Site:Kennedy Space Center,Johnson Space Center,Marshall Space Flight Center,NASA Headquarters,Glenn Research Center,Dryden Flight Research Center,Ames Research Center,Stennis Space Center,Langley Research Center,White Sands Test Facility,Goddard Space Flight Center,Jet Propulsion Laboratory,JPL Deep Space Network,Office of the Inspector General,Wallops Flight Facility,IV&V,NASA Shared Services Center

Organization Type:All

Status:All

Total records evaluated:	1275
Total Safety records evaluated:	843
Total Injury Illness records evaluated:	432

Safety Classification Breakdown:	Record Count	Damage Vehicle Amt	Damage Property Amt
Total Type A records:	0	\$0.00	\$0.00
Total Type B records:	4	\$0.00	\$310000.00
Total Type C records:	87	\$0.00	\$606000.00
Total Type D records:	147	\$20135.01	\$52267.00



Safety Data Entered in IRIS within 24 Hours	Record Count	Number entered within 24 Hours	Percentage
Total Safety Records:	843	476	56.47
Safety Records with Vehicle Damage:	41	23	56.00
Safety Records with Property Damage:	60	38	63.00
Type A Records:	0	0	0.00
Type B Records:	4	3	75.00
Type C Records:	87	50	57.00
Type D Records:	147	78	53.00

Safety Data Quality	Record Count	Percentage
Safety records opened during time period are still open:	393	46.62
Open Safety records during time period updated within 30 days of the end date:	201	23.84
Recommendations to prevent recurrence (Action Request):	347	41.16
Safety records with a Lessons Learned:	65	7.71
Safety records with a Root cause recorded:	364	43.18



Root Cause	Record Count	Percentage
HUMAN FACTORS:Lack of Attention	77	9.13
HUMAN FACTORS:Misjudgment of Conditions	68	8.07
HUMAN FACTORS:Working Environment	48	5.69
HUMAN FACTORS:General	28	3.32
OTHER:Other	19	2.25
HUMAN FACTORS:Safety Violation	13	1.54
EQUIPMENT FAILURE:Material Failure	10	1.19
Walking Work Surface:Floor Surface	9	1.07
HANDLING:General	8	0.95
EQUIPMENT FAILURE:Design Deficiency	6	0.71
EQUIPMENT FAILURE:General	5	0.59
EQUIPMENT FAILURE:Maintenance	5	0.59
HUMAN FACTORS:Lack of Experience	4	0.47
HUMAN FACTORS:Distraction	3	0.36
EQUIPMENT FAILURE:Material Defects	3	0.36
HANDLING:Design Deficiency	3	0.36
COMMUNICATION:General	3	0.36
COMMUNICATION:Paging Warning Inadequate	3	0.36
Electric Comp: Power Line/electrical Wiring	3	0.36



Env/mat Control: Skin Exposure To Materials	3	0.36
Walking Work Surface:Stairs	3	0.36
NATURAL PHENOMENON:Wind	3	0.36
PROCEDURE: General	3	0.36
PROCEDURE:Procedure Deficiency	2	0.24
Walking Work Surface:Elevated Surfaces	2	0.24
Portable Tools:Non-powered	2	0.24
Walking Work Surface:Ladders	2	0.24
Env/mat Control: General Air Contamination	2	0.24
COMMUNICATION:Schedule Conflict	2	0.24
ERGONOMIC INJURY:Carpal Tunnel Syndrome	2	0.24
HAZARDOUS OPERATION:Improper Protection	2	0.24
HAZARDOUS OPERATION:Unsafe Equipment	2	0.24
Mat Hdng:Manual Mat Hdng	2	0.24
NATURAL PHENOMENON:General	2	0.24
NATURAL PHENOMENON:Rain	1	0.12
Machinery:Metal Grinding/Finishing	1	0.12
Machinery:Metal Shaping/Forming/Assembly	1	0.12
Manually Assembled/disassembled:Connectors	1	0.12
HUMAN FACTORS:Fatigue	1	0.12
HUMAN FACTORS:Lack of Authority	1	0.12
HANDLING:Deviation from Procedure	1	0.12
COMMUNICATION:Task Coordination/Planning Inadequate	1	0.12
COMMUNICATION:Task Supervision Inadequate	1	0.12
Electric Comp: Fuse/Substation/Bus Panel	1	0.12
ORGANIZATIONAL DEFICIENCY:General	1	0.12
Walking Work Surface:Floor And Wall Opening	1	0.12
None	0	0.00



Injury Illness Case Type Breakdown	Record Count	Percentage
Injuries Total Records:	393	90.97
Non Occ-Medical Leave Only:	0	0.00
Non Occ-Personal Medical Condition:	4	0.93
Non Occ-Recordability not yet determined:	24	5.56
Non Occ-Short Visit:	14	3.24
Occ - First Aid:	172	39.81
Occ - Non Recordable Non-Injury or Non-Illness:	18	4.17
Occ - OSHA Record - Days Away:	30	6.94
Occ - OSHA Record - Other:	86	19.91
Occ - OSHA Record - Rest. Days Only:	45	10.42
Illnesses Total Records:	25	5.79
Non Occ-Medical Leave Only:	0	0.00
Non Occ-Personal Medical Condition:	3	0.69
Non Occ-Recordability not yet determined:	2	0.46
Non Occ-Short Visit:	0	0.00
Occ - First Aid:	11	2.55
Occ - Non Recordable Non-Injury or Non-Illness:	1	0.23
Occ - OSHA Record - Days Away:	0	0.00
Occ - OSHA Record - Other:	8	1.85
Occ - OSHA Record - Rest. Days Only:	0	0.00
Not Designated Injury or Illness Total Records:	14	3.24
Non Occ-Medical Leave Only:	0	0.00
Non Occ-Personal Medical Condition:	0	0.00
Non Occ-Recordability not yet determined:	6	1.39
Non Occ-Short Visit:	0	0.00
Occ - First Aid:	0	0.00
Occ - Non Recordable Non-Injury or Non-Illness:	8	1.85
Occ - OSHA Record - Days Away:	0	0.00



Injury Illness Data Entered within 24 Hours	Record Count	Number entered within 24 Hours	Percentage
Total Injury Illness Records:	432	214	49.54
Non Occ - Medical Leave Only:	0	0	0.00
Non Occ - Personal Medical Condition:	7	3	42.86
Non - Occ Recordability Not Yet Determined:	32	0	0.00
Non Occ - Short Visit:	14	5	35.71
Occ - First Aid:	183	100	54.64
Occ - Non Recordable Non-Injury or Non-Illness:	27	17	62.96
Occ - OSHA Record - Days Away:	30	18	60.00
Occ - OSHA Record - Other:	94	44	46.81
Occ - OSHA Record - Rest. Days Only:	45	27	60.00

Injury Illness Data Quality	Record Count	Percentage
Injury Illness records opened during time period:	432	100.00
I/I records opened during time period are still open:	213	49.31
Open I/I records during time period updated within 30 days of the end date:	176	40.74
Recommendations to prevent recurrence (Action Request):	20	4.63
Injury Illness records with a Root Cause recorded:	193	44.68



Root Cause	Record Count	Percentage
HUMAN FACTORS:Lack of Attention	41	9.49
HUMAN FACTORS:Working Environment	39	9.03
HUMAN FACTORS:Misjudgment of Conditions	31	7.18
HUMAN FACTORS:General	25	5.79
Walking Work Surface:Floor Surface	9	2.08
OTHER:Other	8	1.85
HUMAN FACTORS:Safety Violation	5	1.16
HANDLING:General	4	0.93
HAZARDOUS OPERATION:Improper Protection	3	0.69
COMMUNICATION:Task Coordination/Planning Inadequate	3	0.69
EQUIPMENT FAILURE:General	2	0.46
EQUIPMENT FAILURE:Material Defects	2	0.46
HANDLING:Design Deficiency	2	0.46
Portable Tools:Non-powered	2	0.46
PROCEDURE:Procedure Deficiency	2	0.46
Walking Work Surface:Ladders	2	0.46
Walking Work Surface:Stairs	2	0.46
Machinery:Non-metal Shaping/Forming/Assembly	1	0.23
NATURAL PHENOMENON:Wind	1	0.23
PROCEDURE:Requirements Inadequate	1	0.23
TOXIC MATERIAL:General	1	0.23
HANDLING:Deviation from Procedure	1	0.23
EQUIPMENT FAILURE:Material Failure	1	0.23
ERGONOMIC INJURY:Carpal Tunnel Syndrome	1	0.23
EQUIPMENT FAILURE:Maintenance	1	0.23
EQUIPMENT FAILURE:Design Deficiency	1	0.23
HUMAN FACTORS:Fatigue	1	0.23
HAZARDOUS OPERATION:Improper Clothing	1	0.23
None	0	0.00

Trending Reports- "SOMD Reports"



Ex3's EHS Data Management System - Microsoft Internet Explorer

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Address <https://nasa.ex3host.com/iris/newmenu/default.asp>

Ex3's EHS Data Management System

Ex3

- Injury Illness
- Action Request
- Safety Incident
- Corrective Incident
- Employee
- Headcount
- Schedule
- Technical Issue
- Administration**
 - Ref Table Maint
 - Broadcast Msg
 - Manage Contracts
 - ▼ Manage Users
 - Sync Employees
 - SOMD Reports
 - SOMD Targets
- General

SOMD Reports

Country:

Site:

Month:

Year:

Reports:

bold labels indicate required field - All date formats:(m/d/yyyy)

SOMD reports are located under "Administration"

Action: Mishap Prevention through IRIS Data Promulgation



SOMD/AOA Reports

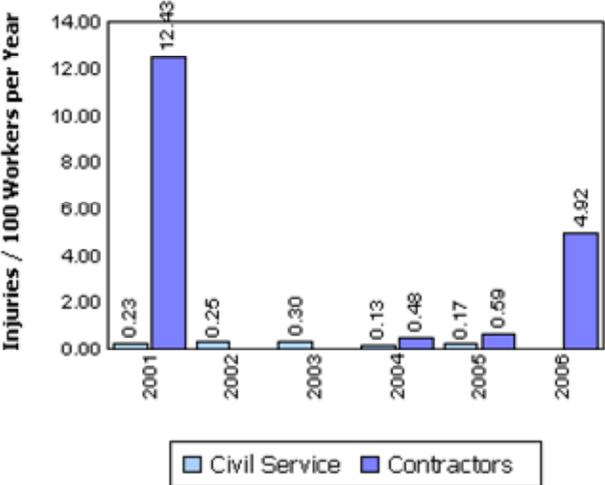
- All IRIS site administrators have access to these reports in the Safety Incident Module under the “Administration” menu selection.
- Only Assurance Technology Center (now NSC) global administrators have access to set targets.
- IRIS Site administrators will be required to submit targets for their centers for both civil servants and contractors. Submittal form will be provided by ATC.
- This data represents all data in IRIS including program and project IRIS reported injuries and mishaps/close calls and property damage.
- The next version will include auto text generation.

Cumulative Lost Time Injury Rate (LTIR)

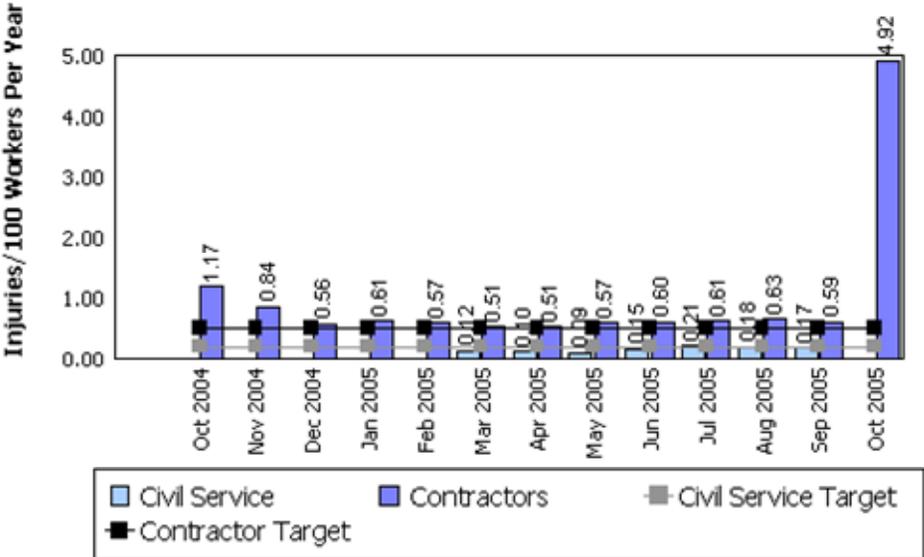
Fiscal Year = 2005; Center = Kennedy Space Center

FY 2005 LTIR Targets Civil Service <= 0.19; Contractor <= 0.49

Annual History



LTIR Cumulative



Zero LTIR or Down is good

Civil Service



Contractors



SAMPLE:
Taken from IRIS Production Data
11/4/2005

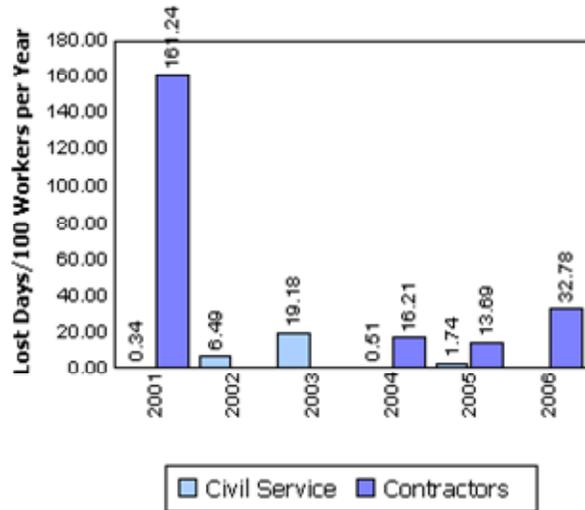
Baseline-Share:
Previous year rate less 3%
Lower limit
Upper limit

Cumulative Lost Time Injury Severity Rate (LTISR)

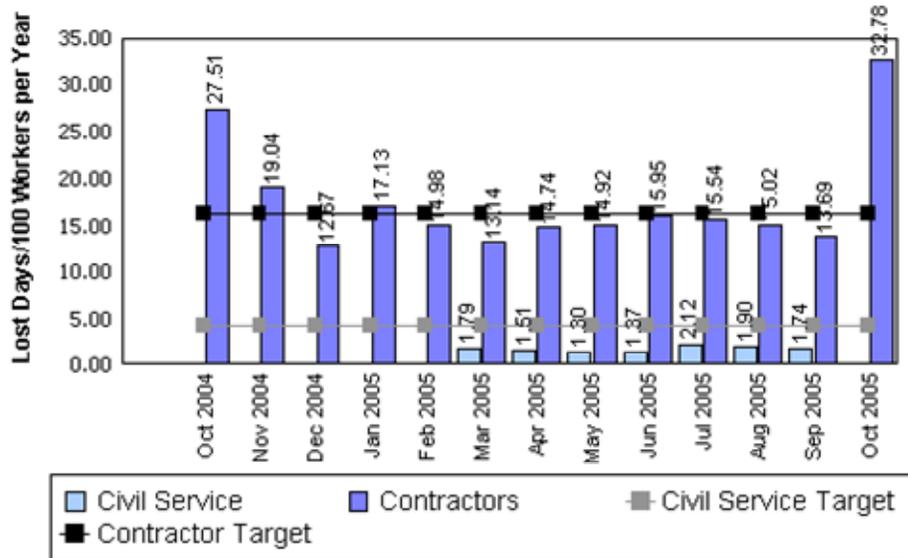
Fiscal Year = 2005; Center = Kennedy Space Center

FY 2005 LTISR Targets Civil Service <= 4.13; Contractor <= 16.16

Annual History



LTISR (Cumulative)



Zero LTISR or Down is good

Civil Service



Contractors



SAMPLE:
 Taken from IRIS Production Data
 11/4/2005

Baseline-Share:

Previous year rate less 3%

Lower limit

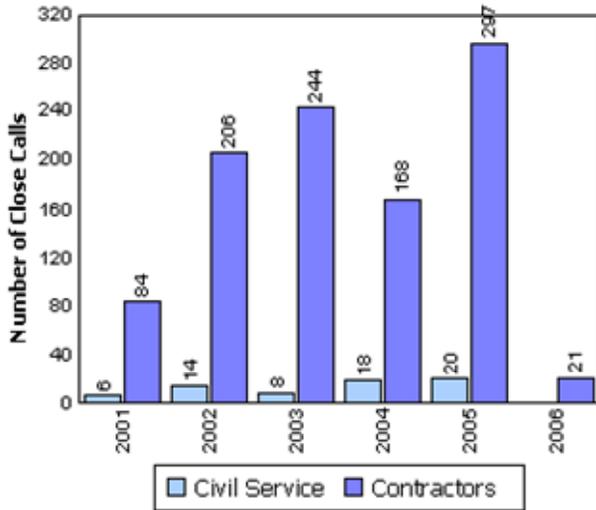
Upper limit

Close Calls

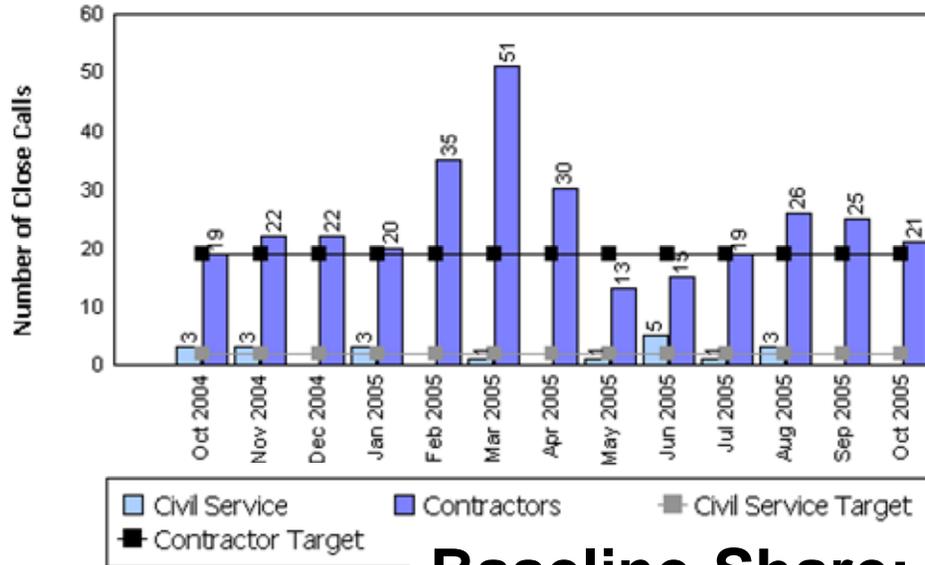
Fiscal Year = 2005; Center = Kennedy Space Center

FY 2005 Close Calls Reporting Targets Monthly Civil Service Target ≥ 2 ; Monthly Contractor Target ≥ 19

Annual History



Close Calls Reported



Up is good

Civil Service



Contractors



SAMPLE:
Taken from IRIS Production Data
11/4/2005

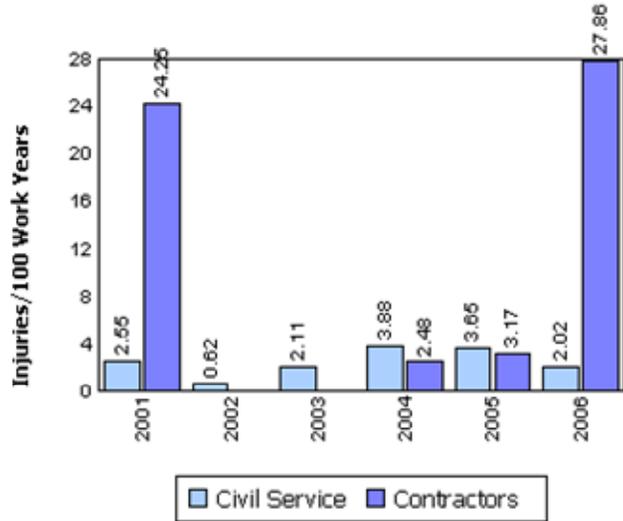
Baseline-Share:
Heinrich ratio based on
Previous year A's +B's
Lower limit
Upper limit

Cumulative Total Case Incident Rate (TCIR)

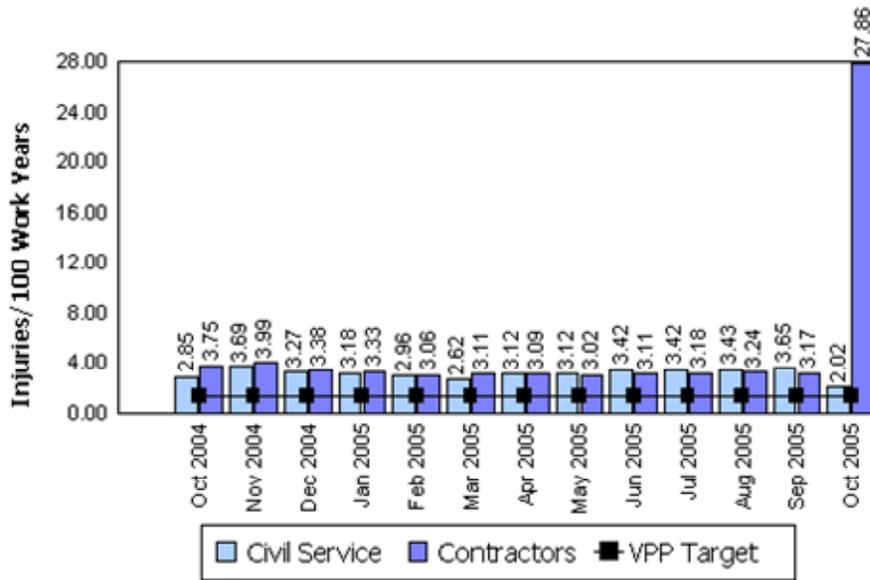
Fiscal Year = 2005; Center = Kennedy Space Center

TCIR VPP Target (Civil Servant and Contractor) << 1.3

Annual History



TCIR



Zero TCIR or Down is good

Civil Service



Contractors



SAMPLE:
Taken from IRIS Production Data
11/4/2005

Baseline-Share:

Previous year rate less 3%

Lower limit

Upper limit

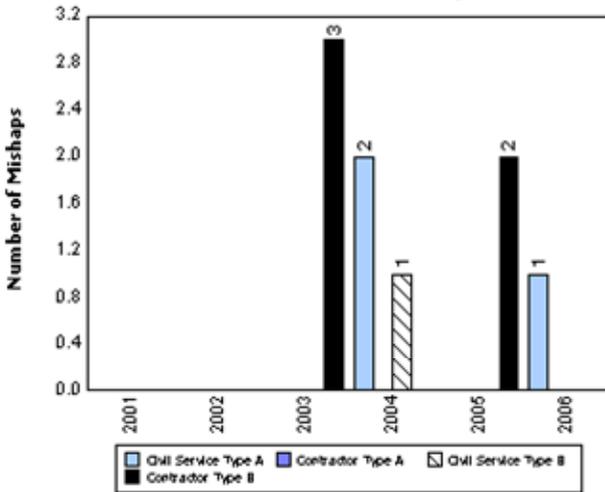
Type A & B Mishaps

Fiscal Year = 2005; Center = Kennedy Space Center

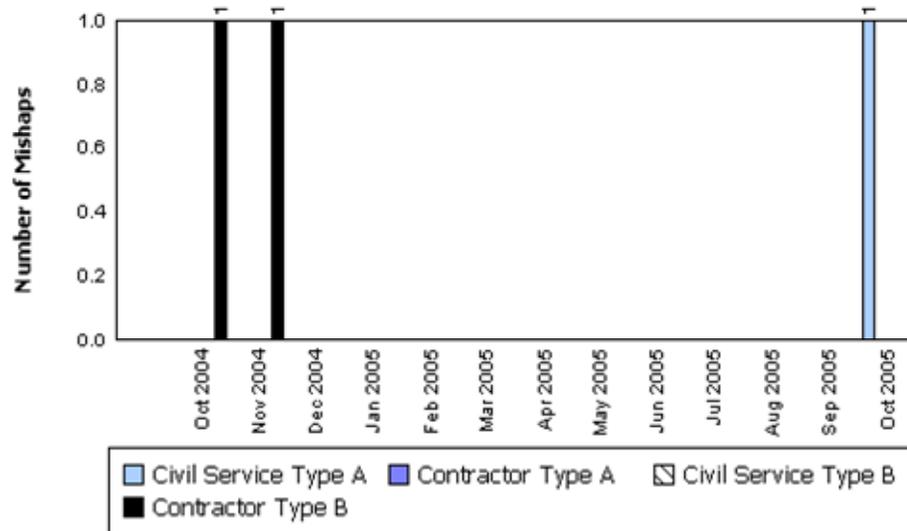
Monthly Mishap Target (Type A & B Mishaps) = 0

Zero Mishaps is Good

Annual History



Type A & B Mishaps



Civil Service



Contractors



SAMPLE:
Taken from IRIS Production Data
11/4/2005

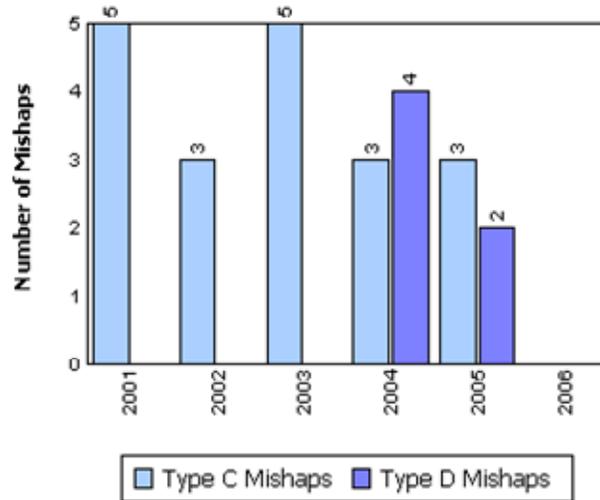
Baseline-Individualized
per center
Lower limit
Upper limit

Type C & D Mishaps - Civil Service

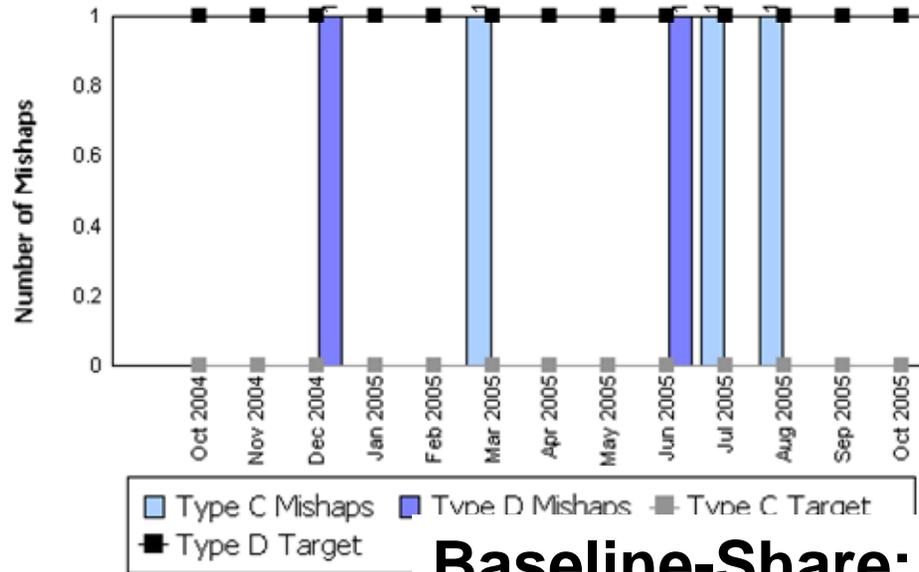
Fiscal Year = 2005; Center = Kennedy Space Center

FY 2005 Monthly Mishap Targets Civil Service: Type C <= 0; Civil Service: Type D <= 1

Annual History (Civil Service)



Type C & D Mishaps - Civil Service



Zero Mishaps or down is good

Type C Mishap



Type D Mishap



SAMPLE:
 Taken from IRIS Production Data
 11/4/2005

Baseline-Share:

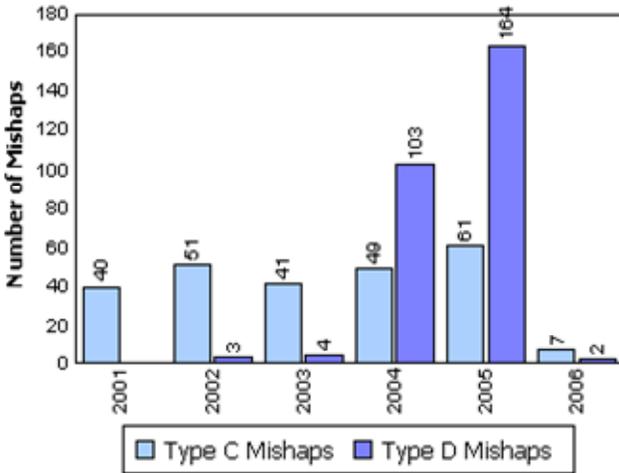
**Heinrich ratio based on
 Previous year A's +B's
 Lower limit
 Upper limit**

Type C & D Mishaps - Contractors

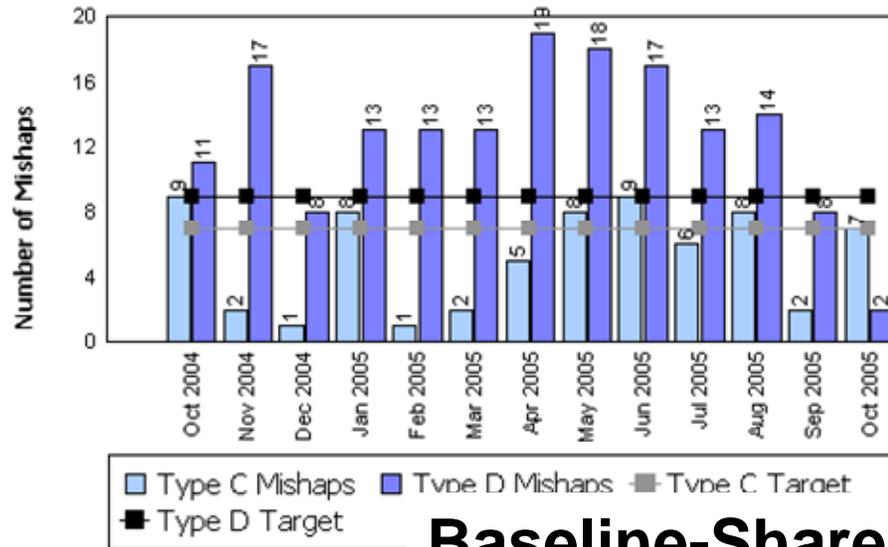
Fiscal Year = 2005; Center = Kennedy Space Center

FY 2005 Monthly Mishap Targets Contractor: Type C <= 7; Contractor: Type D <= 9

Annual History



Type C & D Mishaps - Contractors



Zero Mishaps or down is good

Type C Mishap



Type D Mishap



SAMPLE:
Taken from IRIS Production Data
11/4/2005

Baseline-Share:

Heinrich ratio based on

Previous year A's +B's

Lower limit

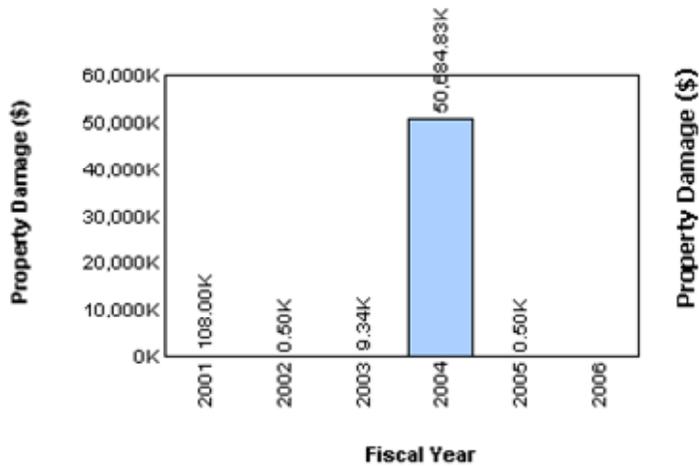
Upper limit

Equipment/Property Damage (Civil Service)

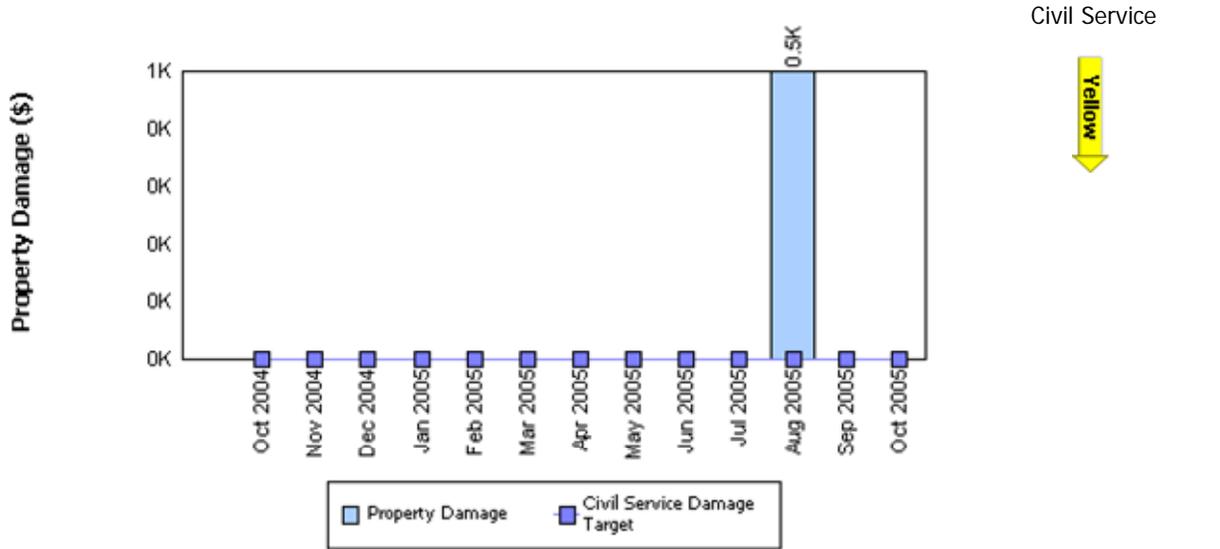
Fiscal Year = 2005; Center = Kennedy Space Center

Monthly Property Damage Targets - Civil Service <= 0

Annual History (Civil Service)



Property Damage (Civil Service)



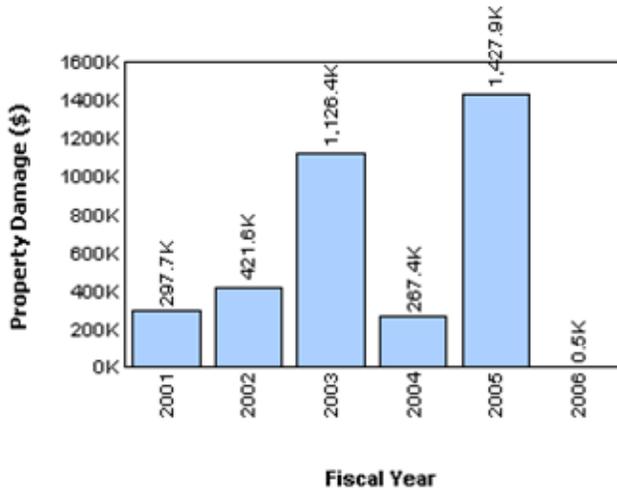
SAMPLE:
Taken from IRIS Production Data
11/4/2005

Baseline-Individualized
per center
Lower limit
Upper limit

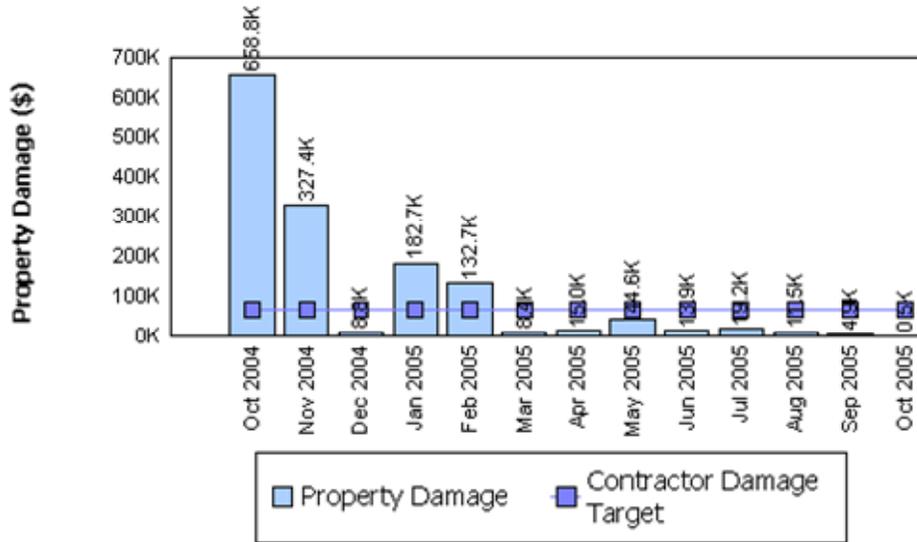
Equipment/Property Damage (Contractors)

Fiscal Year = 2005; Center = Kennedy Space Center
 Monthly Property Damage Targets - Contractor <= 67000

Annual History (Contractors)



Property Damage (Contractors)



Zero Damage or Down is good

Contractors



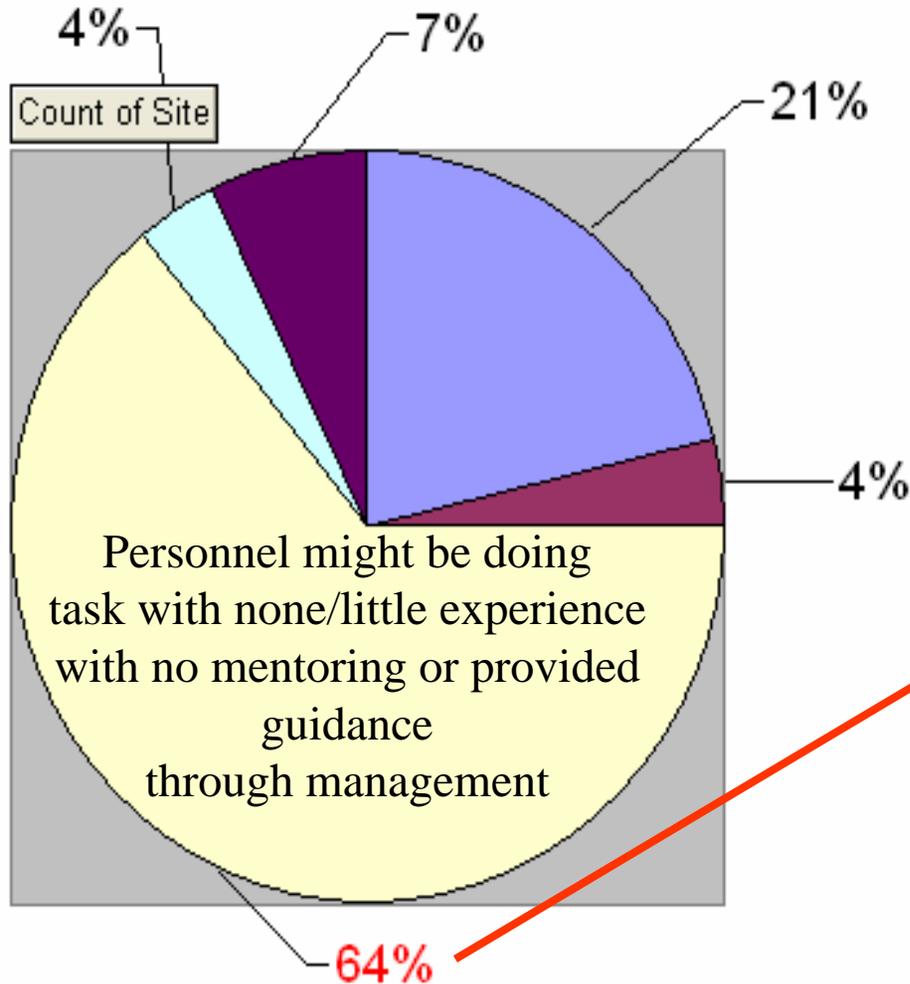
SAMPLE:
 Taken from IRIS Production Data
 11/4/2005

Baseline-Individualized
 per center
 Lower limit
 Upper limit

Safety Incident Type--Miscellaneous

Root Cause as Selected 1984-2006

Using data exports to
create your own
reports



Root Cause

- EQUIPMENT FAILURE:Design Deficiency
- EQUIPMENT FAILURE:Material Failure
- HUMAN FACTORS:Lack of Experience**
- HUMAN FACTORS: Misjudgment of Conditions
- ORGANIZATIONAL DEFICIENCY:Lack of Training



FY07 Forward Project Plan

- Application Upgrades/PDR evaluation
 - Free text search
 - Review of OPIE PBMA issues and application change suggestions
 - Review of current reports for consistency of capability and new NSC needs
 - Notification integration with “Mishap lists” and other notification requirements
 - Program/project hierarchy
 - Data exports
 - Corrective Action Plan (ICAS) functionality release
 - NASA Root cause Methodology
 - Automated accounts
 - MAC compatibility
 - Training site

- New Requirement compliance
 - POA&M and CR’s relating to the OMB directive dated June 23rd, 2006
 - Certification and Accreditation



FY07 Forward Project Plan

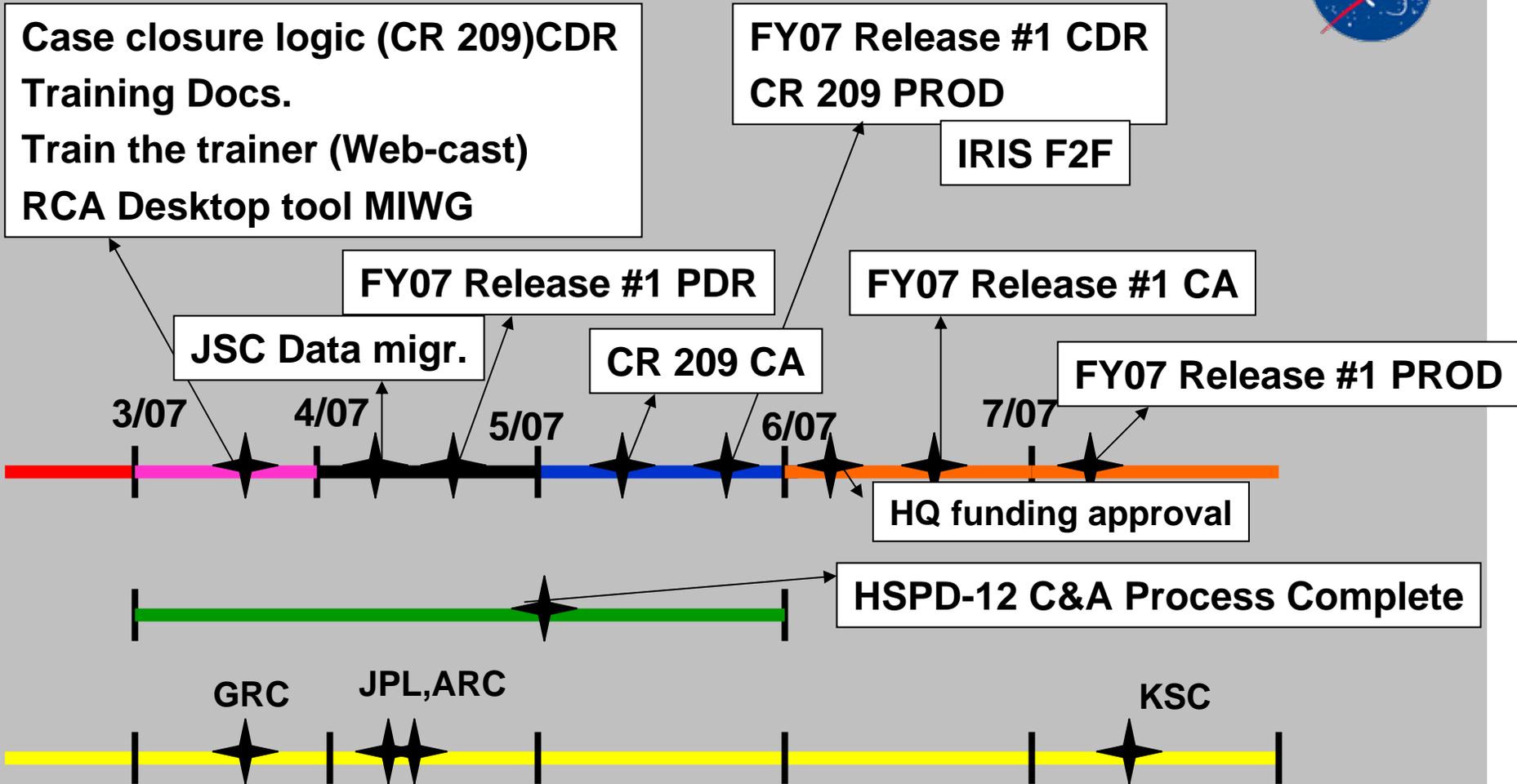
- **Meetings**
 - Technical Awareness Face to Face
 - IDA with HR (x500, FPPS transition)
 - Center specific Technical Awareness and Exchange Meetings (IRIS TEAM)

- **Data management**
 - Drop down analysis and mapping
 - IDA Data set to CVIS
 - Integration with PRACA taxonomy
 - IDA x500 FPPS implementation
 - Data migrations
 - Historical data integration

- **Support upgrades**
 - Adhoc query
 - Data exports



Schedule



Monthly metrics

- Call for data 10th / Audit Reports run
- Compile 15th/ quality checks
- Submit 20-25th



What we need from you....

- Goals for the SOMD reports. IRIS POC's given this action to be completed by March 31st. Safety offices to evaluate and provide to the IRIS POC's.
- The following reports need center wide agreed upon targets (**Baseline, lower limit, upper limit**)
 - Lost time injury rate
 - Cumulative lost time injury severity rate
 - Cumulative total case incident rate
 - Close Calls
 - Type A&B mishaps
 - Type C&D Mishap- Civil Servant
 - Type C&D Mishap- Contractor
 - Equipment property damage-civil servant
 - Equipment property damage - contractor

What we need from you (continued)



- Historical data categorization (we can help)
 - “Incident Category”
 - “Incident type”
 - “Incident subtype”
 - “root cause”
 - “RAC”
 - “Severity”
 - “Probability”
 - “Cost” estimates and actual (property and vehicle tabs)
- Migration of Identified data
- Identification of redundant systems and schedule for transition
- Define the RAC recording requirement
- “Cases of interest” supply to Sue Otero (what it was, when and where it occurred)

What we need from you (continued)



- Regularly review IRIS reports with your IRIS site administrators:
 - Audit report (SI)
 - Quick incident log report (SI)
 - Damage Report (SI)
 - Center Safety (SI)
 - Paretos (SI,II)
 - Indicators (SI,II)
 - Tracking report (AR)
 - Case statistics report (II)
- Schedule Center visit



IRIS Contacts

Suzanne Otero

440-962-3106

suzanne.l.otero@nasa.gov

For accounts requests contact your center IRIS Site Administrator

Once you have approval for an account:

Accounts: irisaccounts@grc.nasa.gov

Ex3 Help: *hostsupport@ex3.com* or an e-mail address defined by the contractor or calling 888.460.7874 x208

***Action: Mishap Prevention through IRIS
Data Promulgation***



Back Up Slides:
SOMD Model Charts

Action: Mishap Prevention through IRIS Data Promulgation



Global Visibility: The Rules

- All material printed from IRIS shall be kept secured when not in use.
- Electronic transmission of records through e-mail is prohibited.
- Discarded printouts from the system shall be shredded.
- Documentation printed shall have a privacy notice cover sheet
- Routed documents shall have the privacy cover sheet and a secure envelop shall be used (no “holy Joe’s”).

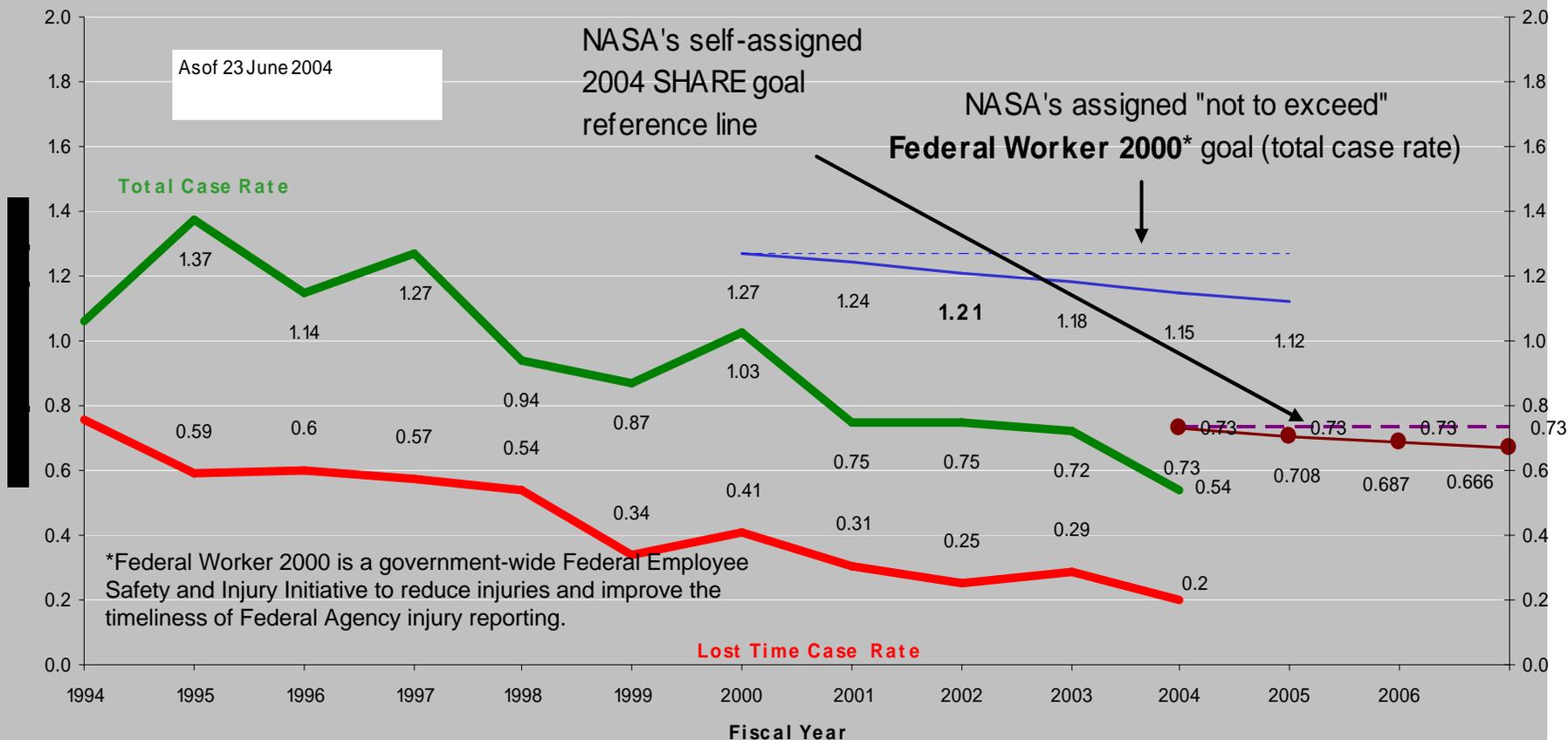


NASA per BLS	Employees	Total OWCP cases	Total case Rate	Lost Time Cases	Lost Time case Rate	Fatalities
FY2006	18,447	89	0.48	36	0.2	1
FY2005	19,049	94	0.49	34	0.18	0
FY2004	19,105	117	0.61	34	0.18	0
FY2003	18,908	141	0.75	42	0.22	1
FY2002	18,874	152	0.81	46	0.24	0
NASA per IRIS	Employees	Total Occ Cases (exc 1st Aid)	TCIR	Lost Time cases	Lost Time case Rate	Fatalities
FY2006	18391	137	0.77	22	0.12	1
FY2005	17876	203	1.17	23	0.13	0
FY2004	19356	215	1.24	24	0.14	0
FY2003	19440	237	1.36	42	0.24	0
FY2002	19204	213	1.24	28	0.16	0
USG per BLS	Employees	Total OWCP cases	Total case Rate	Lost Time Cases	Lost Time case Rate	Fatalities
FY2006	2,698,050	119,970	4.45	50,307	1.86	109
FY2005	2,711,952	132,772	4.9	53,853	1.99	117
FY2004	2,897,788	143,511	4.95	57,256	1.98	56
FY2003	1,941,511	81,283	4.19	37,402	1.93	61
FY2002	1,865,012	71,782	3.85	32,236	1.73	80



NASA Civil Service Injury Rates

(Based on DoL Office of Workers' Compensation Programs reports)

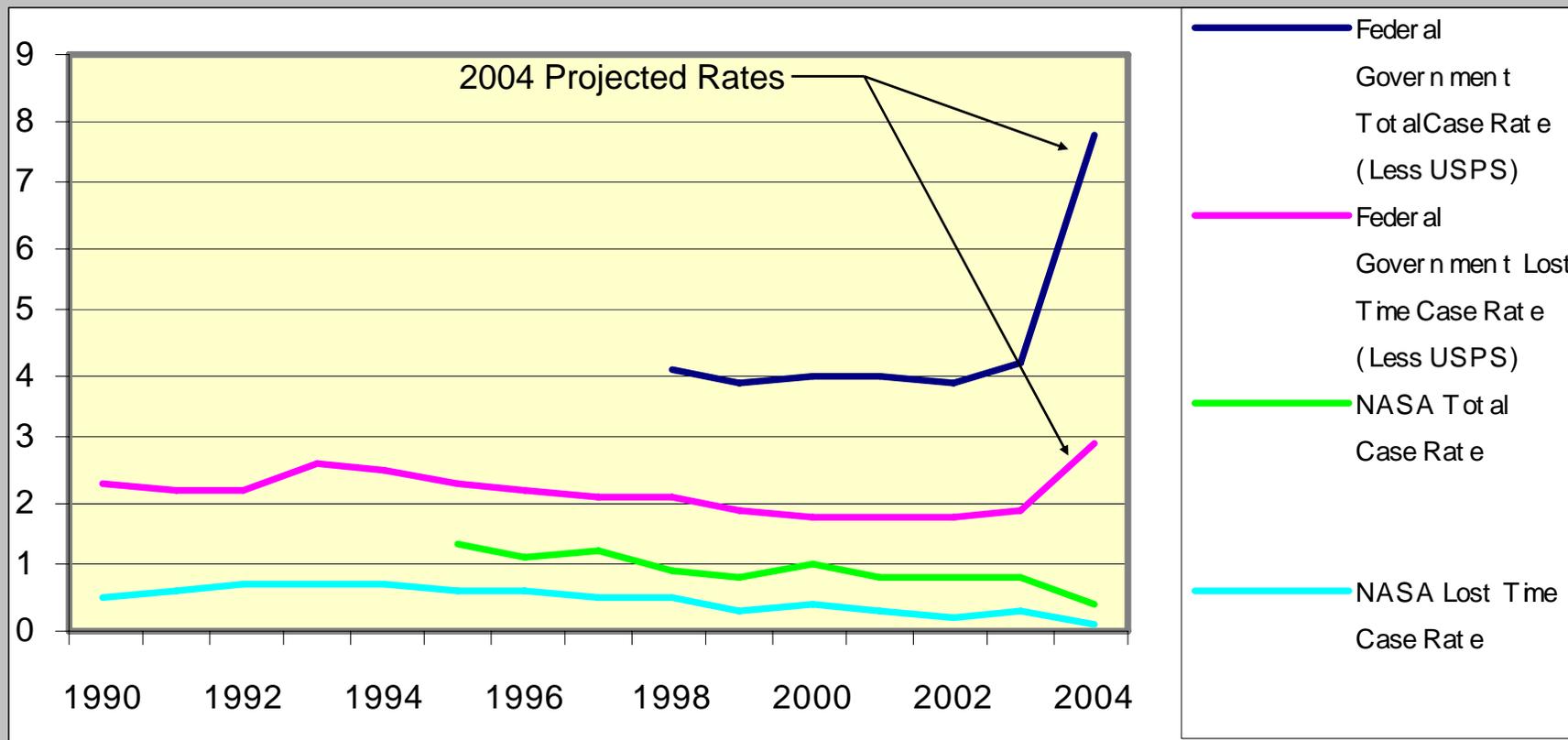


Note: Columbia accident resulted in 7 fatal injuries (would be counted as lost time cases). Numbers on chart reflect only one of these fatalities since there was one NASA civil service person killed. If we counted all 7 fatalities in our 2003 record, the numbers would be – total case rate 0.84 and lost time case rate 0.34.



Civil Service Injury/Illness Rates

(Based on DoL Office of Workers' Compensation Program Reports)



LTCR=

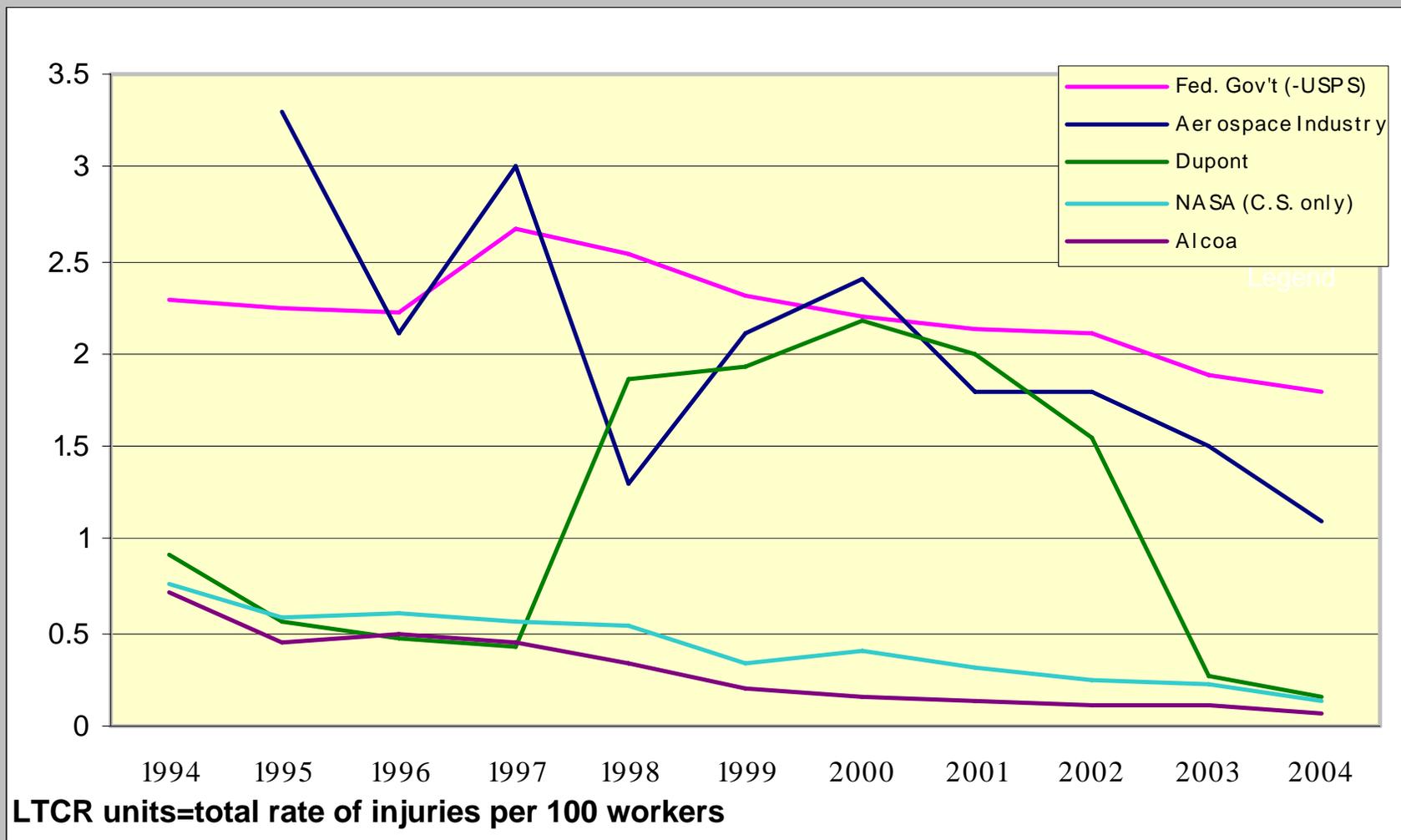
LTCR units=total rate of injuries per 100 workers

TCR units= total rate of lost day injuries per 100 workers



NASA vs. Selected Industry Injury/Illness Rates

(lost time injuries/illnesses per 100 employees per year)





NASA vs. Selected Industry Injury/Illness Rates

(lost time injuries/illnesses per 100 employees per year)

